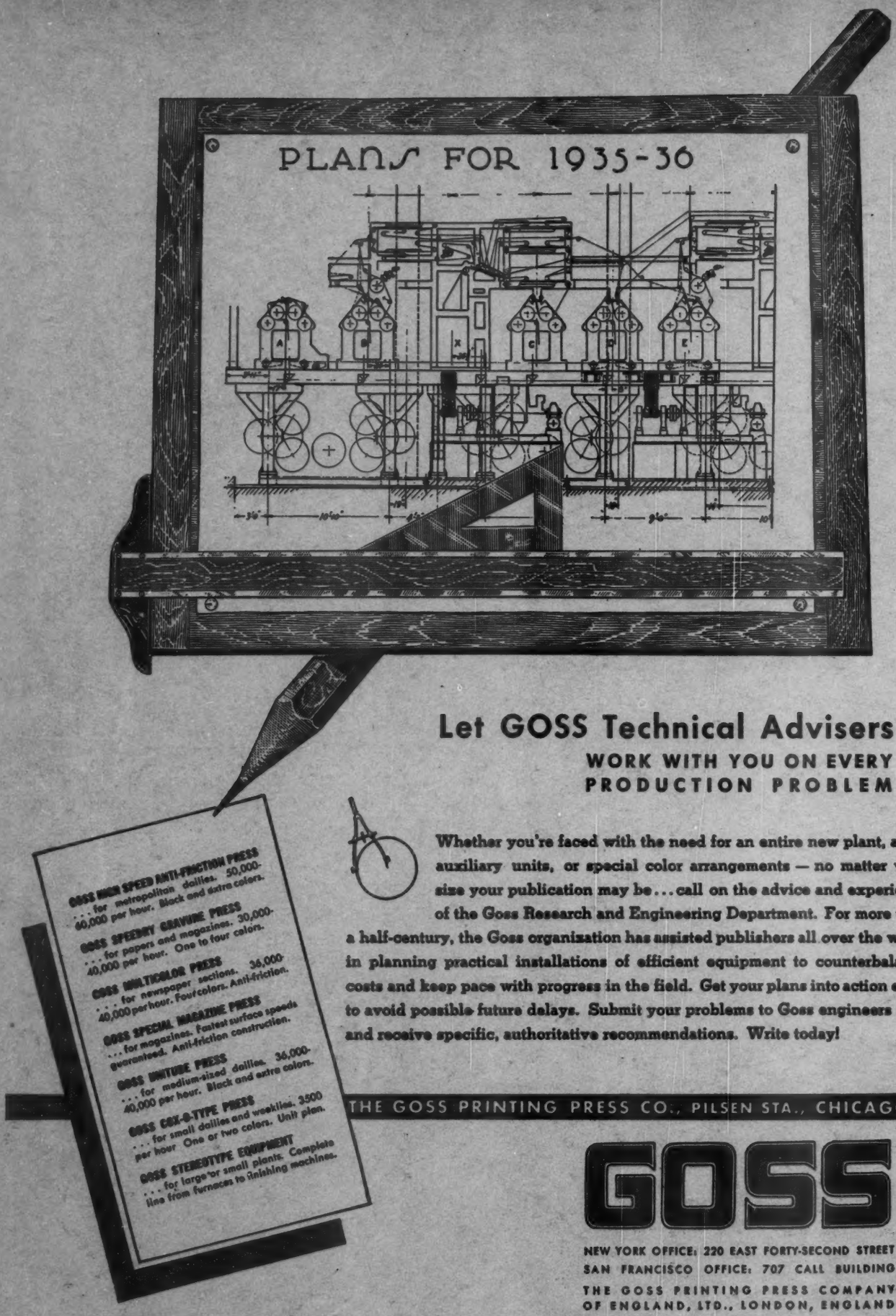
PRINTING

ENGINEER


PLANS FOR 1935-36
GOSS HIGH SPEED ANTI-FRICTION PRESS
. . . for metropolitan dailies. 50,000-40,000 per hour. Black and extra colors.
GOSS SPEEDY GRAVURE PRESS
. . . for papers and magazines. 30,000-40,000 per hour. One to four colors.
GOSS MULTICOLOR PRESS
. . . for newspaper sections. 36,000-40,000 per hour. Four colors. Anti-friction.
GOSS SPECIAL MAGAZINE PRESS
. . . for magazines. Fastest surface speeds guaranteed. Anti-friction construction.
GOSS UNITURE PRESS
. . . for medium-sized dailies. 36,000-40,000 per hour. Black and extra colors.
GOSS COX-O-TYPE PRESS
. . . for small dailies and weeklies. 3500 per hour. One or two colors. Unit plan.
GOSS STEREOTYPE EQUIPMENT
. . . for large or small plants. Complete line from furnaces to finishing machines.

Let GOSS Technical Advisers

WORK WITH YOU ON EVERY PRODUCTION PROBLEM

Whether you're faced with the need for an entire new plant, a few auxiliary units, or special color arrangements — no matter what size your publication may be... call on the advice and experience of the Goss Research and Engineering Department. For more than a half-century, the Goss organization has assisted publishers all over the world in planning practical installations of efficient equipment to counterbalance costs and keep pace with progress in the field. Get your plans into action early to avoid possible future delays. Submit your problems to Goss engineers now and receive specific, authoritative recommendations. Write today!

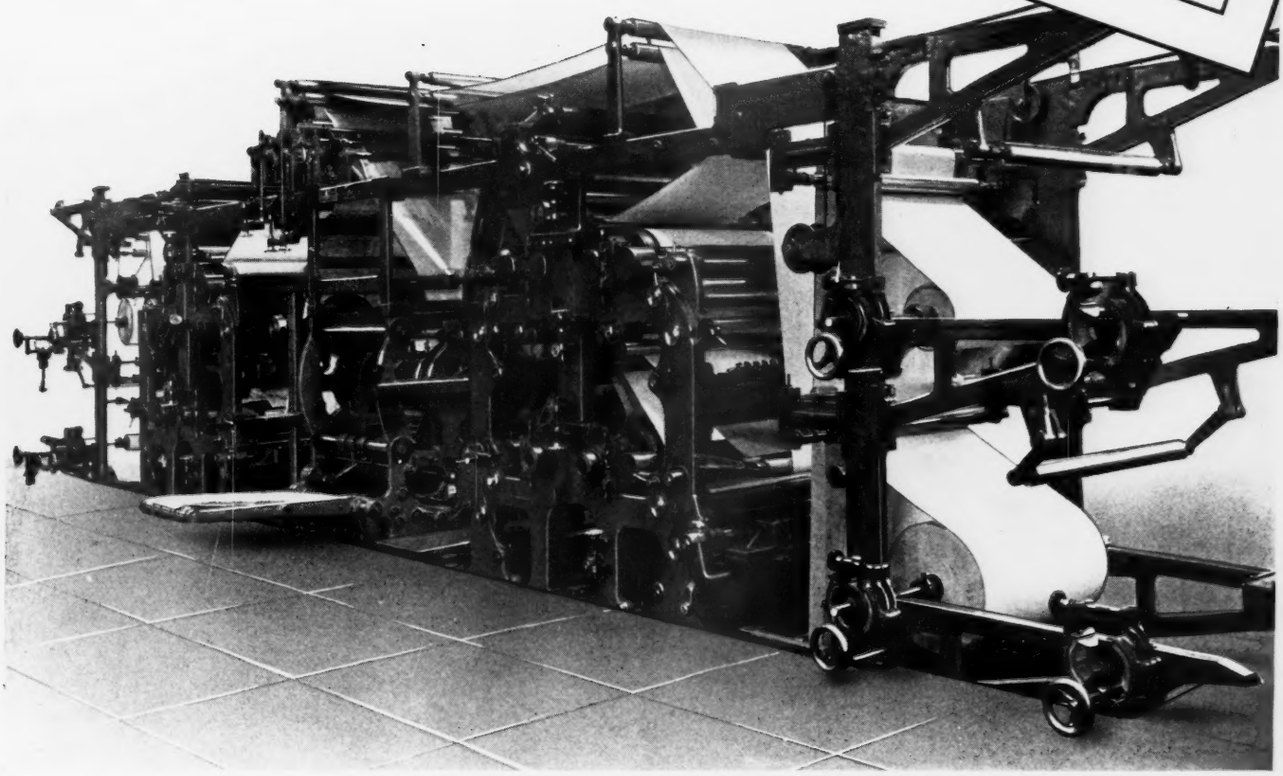
THE GOSS PRINTING PRESS CO., PILSEN STA., CHICAGO

GOSS

NEW YORK OFFICE: 220 EAST FORTY-SECOND STREET
SAN FRANCISCO OFFICE: 707 CALL BUILDING
THE GOSS PRINTING PRESS COMPANY OF ENGLAND, LTD., LONDON, ENGLAND

SPEED *plus* *Quality Printing*

SOLVES PRODUCTION PROBLEMS FOR MEDIUM-SIZED NEWSPAPERS



GOSS UNITUBE PRESS

● 36,000-40,000 complete papers per hour, each one properly printed, uniform in color, neatly folded, and smoothly delivered. No smudge—no slur — no dog-eared copies . . . no danger of plates lifting or climbing at high speed. Goss engineering has completely revised all former standards of tubular type press production with the new Unitube Press and its Tension Lock Stereo Plate.

Two lugs on the inner edge of each plate are gripped by a single lock-up device, holding plates in positive tension, so that they hug the surface of the cylinder at all points . . . The Goss Unitube Press is more accessible, flexible, and variable to color combinations than any press of its kind. It merits investigation; invites comparison. Write for complete details today!

THE GOSS PRINTING PRESS COMPANY, PILSEN STATION, CHICAGO

GOSS

NEW YORK: 220 E. FORTY-SECOND STREET
SAN FRANCISCO: 707 CALL BUILDING
THE GOSS PRINTING PRESS COMPANY OF ENGLAND, LTD., LONDON, ENGLAND

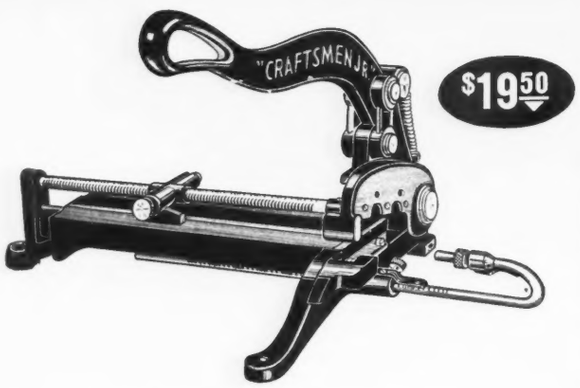
3 OUTSTANDING TOOLS for PRINTERS

PRECISION BUILT

Compare **PRICES** *and* **QUALITY** *with any others on the market*

CRAFTSMEN TOOLS HAVE BEEN TESTED AND APPROVED BY LEADING DEALERS THROUGHOUT THE WORLD

CRAFTSMEN JR. Lead and Rule Cutter

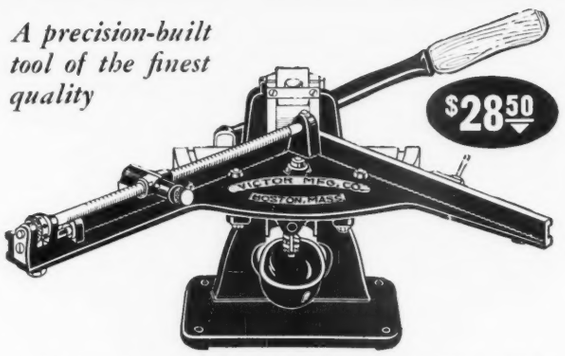


An excellent cutter at less cost

- Micrometer Point Adjustment—Self adjusting point gauge, eliminates guess-work.
- Front gauge—For production cutting (6 points to 55 picas) by points valuable for cutting spaces. Self centering, fool-proof, simple to set.
- Cutting knife—Made of high grade Swedish Steel, will last indefinitely.
- Adjusting Screws for cutting blade—To take up wear of knife. Eliminates the use of shims in back of knife.
- Balanced Handle—Large bearings, strong tension spring. Insures speed, accuracy, and ease of operation.
- Finger Touch Gauge—Mere pressure of thumb and index finger moves the gauge instantly to required measure on graduated bar. Capacity 60 picas by nonpareils.

VICTOR IMPROVED MITERING MACHINE

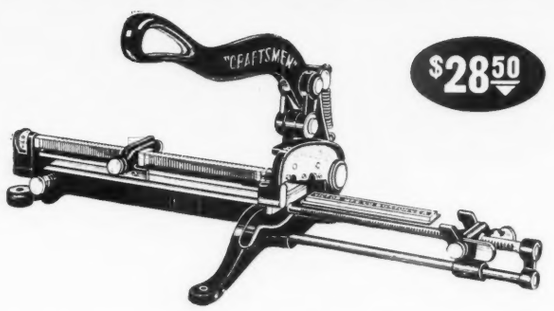
A precision-built tool of the finest quality



This machine embodies many new features and is undoubtedly the outstanding mitering machine on the market today. Some of its advantages:

- It is built of the finest Swedish tool steel insuring long life and rugged qualities.
- There are no locking nuts to unscrew to change angle, thus much valuable time is saved. Holder locks in Eleven different positions.
- Table is plainly marked and both right and left angle corners can be mitered without changing slide.
- The point gauge can be set instantly by the "finger touch" method. It self-locks securely and easily and can be set to any point measure up to 60 picas. Knife made of finest Swedish steel to last an indefinite time.

CRAFTSMEN "FINGER TOUCH" LEAD & RULE CUTTER



A de luxe machine, perfect in every way

ITS OUTSTANDING FEATURES ARE:

- "FINGER TOUCH"—Front Gauge slides on 2 stationary bars. Capacity, 6 points to 46 picas, self locking.
- BALANCED HANDLE—Large bearings and tension spring insures increased power, speed and accuracy.
- "FINGER TOUCH"—Bed Gauge slides on square graduated bar, and in two grooves in bed and will not permit thinnest material to slip under gauge. Capacity 60 picas by points in normal position.
- MICROMETER POINT ADJUSTMENT—Self adjusting by points.
- BED EXTENSION LOCK—By merely pulling knob, bed can be extended to a capacity of 100 picas by points, making it one continuous bed.
- ADJUSTING SCREWS—For cutting blade, you do not have to use shims behind blade to take up wear of knife.

ASK YOUR DEALER FOR A DEMONSTRATION

Sold by Responsible Dealers Throughout the World

CRAFTSMEN MACHINERY COMPANY

307 Atlantic Ave. **Boston, Mass.**

JOHN EGIDY, SALES REPRESENTATIVE, 460 W. 34th ST., NEW YORK CITY

Are you ready for the Holiday Peak Load in Display Composition?

Is your available type supply ample for a succession of heavy days?

With the Ludlow system of hand-set, slug-cast composition, matrices are always ready for the compositor's use, no matter how heavy the volume of display composition. Cases can never run out.

Are your display lines set efficiently?

Users have found that the ease of gathering and spacing Ludlow matrices makes for getting up display lines in a variety of sizes and styles in shorter time.

Is your make-up as fast as it should be?

With the Ludlow, there are only slugs to handle, and—as is universally recognized—all-slug forms make for the speediest handling and make-up.

Do make-overs caused by sinks slow up production?

Ludlow slugs stand up under the most severe stereotyping pressure. Ask the mechanical executives of large newspapers with Ludlow equipment who are rolling mats under the most severe pressure.

With the Ludlow, the display lines for large local advertisements are up and waiting before the body matter is ready. The Ludlow thus helps to meet weekly or daily peak loads, as greatly as it does to carry efficiently the seasonal peak of holiday display.

The best and most up-to-date typefaces, including a number of exclusive designs, are available for use in Ludlow matrices.

Full information regarding Ludlow equipment will be gladly supplied on request.

LUDLOW TYPOGRAPH COMPANY

2032 CLYBOURN AVENUE + + + CHICAGO, ILLINOIS

Set in the Ludlow Tempo family

STA-HI

STAHI INVITES YOU TO LOOK OVER THE EYE LEVEL PICTURES ON THE NEXT PAGE. OF THE REVOLUTIONARY **AUTOFORMER. BUILT TO THE HIGHEST STANDARDS.** NEVER BEFORE HAS ANYTHING IN USE FOR PREPARING DRY-MATS FOR CASTING UNITS. BEEN SO **SMARTLY DESIGNED**—SO STURDILY BUILT. **WITH 25 BASIC ADVANCEMENTS**—WHICH GIVE SIGNIFICANT MEANING TO THE PHRASE—**"UNIFORM CASTING LEVELS."**

PICTURE NUMBER ONE: AN INTIMATE THREE-QUARTER FRONT VIEW. OUTLINING THE **BASIC HEAT CONTROL FEATURES.** GOVERNING TEMPERATURES ON BOTH SIDES OF A DRY-MAT—**ADJUSTABLE IN A RANGE OF SIX POSITIONS.** TO SUIT DRY-MATS OF ANY MANUFACTURE—OR MOISTURE CONTENT. THE RUGGED MOTOR AND FLEXIBLE COUPLING—CONNECTING MOTOR TO SPECIAL BALL BEARING VACUUM PUMP. THE ELECTRICALLY OPERATED LATCHES HOLDING VACUUM CHAMBER IN VACUUM FORMING AND DRYING POSITION.

PICTURE NUMBER TWO: ILLUSTRATING THE AMAZING ALL METAL VACUUM LINE FROM VACUUM CHAMBER TO SPECIALLY DESIGNED VACUUM CONTROL VALVE. **ELECTRICALLY OPERATED CLOSURE.** VACUUM PUMP WITH AIR DISCHARGE THROUGH SILENCING CHAMBERS—**QUIET OPERATION**—VACUUM LINES FITTED WITH VIBRATION DAMPENERS. INDICATING VACUUM GAUGE. PROVIDING VACUUM ADJUSTABLE FOR ALL MAKES OF DRY-MATS.

PICTURE NUMBER THREE: THREE-QUARTER BACK VIEW. DISCLOSING THE ELECTRICAL WATCHMAN OF TIME—**THE ELECTRIC TIMER.** ADJUSTABLE THROUGH A RANGE OF SECONDS TO SUIT MOISTURE CONTENT OF ANY DRY-MAT. **RESET BY CLOSING VACUUM CHAMBER**—OPERATES AT END OF TIME INTERVAL. TO CLOSE OFF VACUUM. UNLATCH VACUUM CHAMBER. WHICH OPENS BY COUNTER-WEIGHTS. AND STOPS MOTOR—COORDINATING THE AUTOMATIC OPERATION OF THIS **STARTLING MACHINE.** DELIVERING THE DRY-MAT VACUUM FORMED AND ELECTRICALLY DRIED—READY FOR CASTING UNITS—**IN A MINIMUM OF TIME.**

ECONOMIC CHANGES WHICH HAVE COMPLETELY ALTERED DRY-MAT ROUTINE. CALLING FOR EVENESS OF THE CASTING SURFACE. **REFLECTING BETTER QUALITY PRINTING**—INDICATES THE USE OF THE **AUTOFORMER.** WHICH BY A PROCESS SO ORDERLY AND AUTOMATIC—PROVIDES **UNIFORM CASTING LEVELS—REVOLUTIONARY IN EFFECT.** THERE IS SOMETHING VERY SOLID IN THE PERFORMANCE OF **THE AUTOFORMER**—IT IS LITERALLY **THE LIFE-LINE TO POOR PRINTING.** THERE IS A SENSE OF SECURITY YOU FEEL WITH **THE AUTOFORMER,** ITS AUTOMATIC OPERATION AND WITH ENGINEERED DRY-MAT ROUTINE.

STAHI NEWSPAPER SUPPLY COMPANY, INC.

LOS ANGELES. CALIFORNIA
1020 CROCKER STREET

417 OREGONIAN BUILDING
PORTLAND, OREGON

AGENTS

GOSS PRINTING PRESS COMPANY
CHICAGO, ILLINOIS

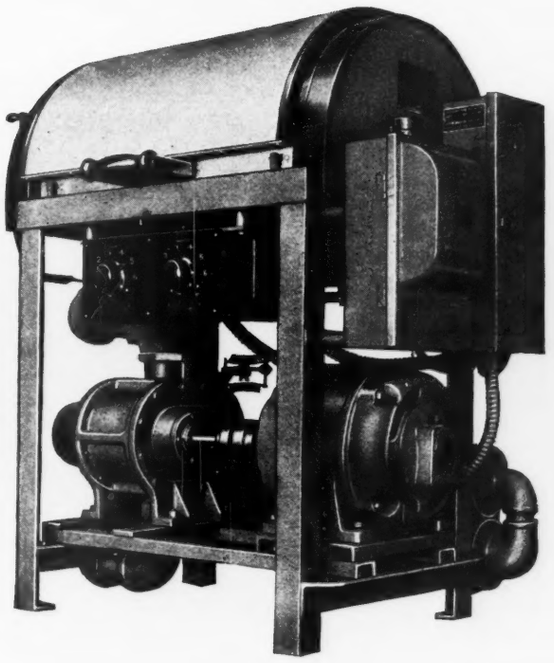
CERTIFIED DRY MAT CORPORATION
NEW YORK CITY, N. Y.

EUROPEAN MANUFACTURERS
GOSS PRINTING PRESS COMPANY OF
LONDON, ENGLAND

WOOD FLONG CORPORATION
HOOSICK FALLS, NEW YORK

BURGESS CELLULOSE COMPANY
FREEPORT, ILLINOIS

SOUTH AMERICAN AGENTS
A. M. CARNEIRO & COMPANY
152 WEST 42 ND ST., NEW YORK, N. Y.



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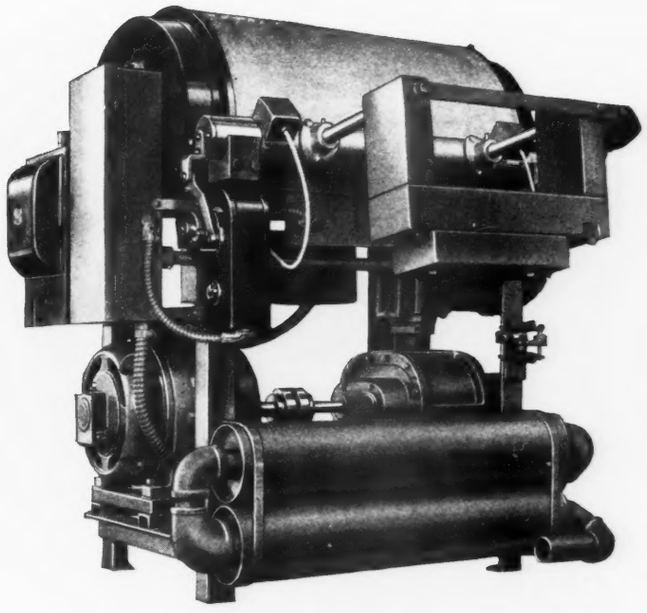
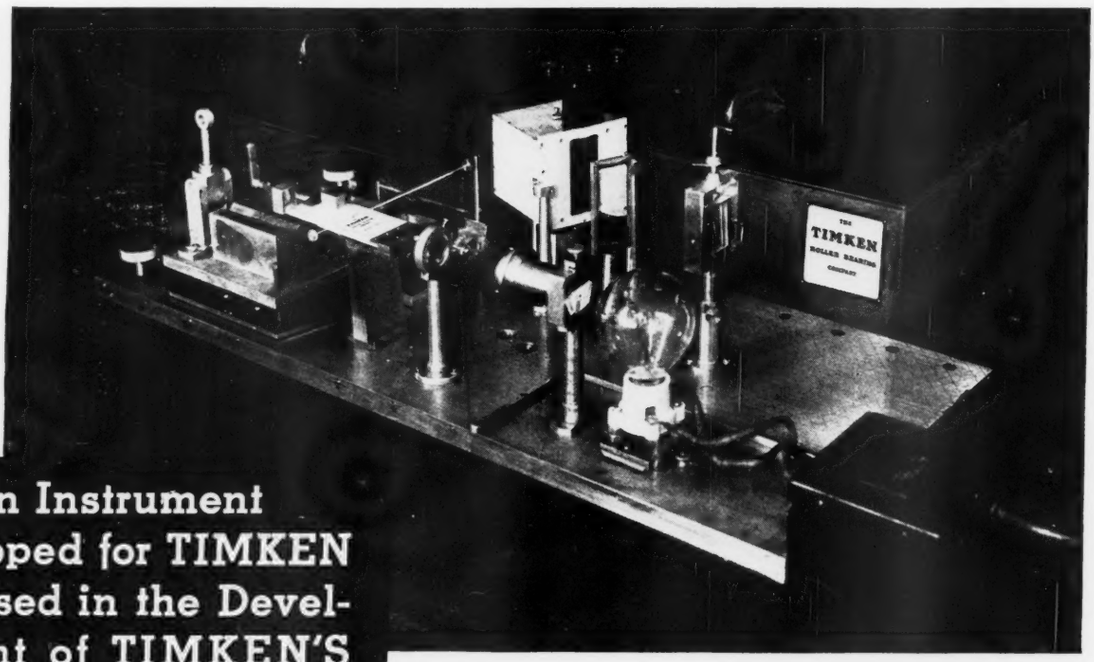


3

the "PROFILOGRAPH"



An Instrument Developed for TIMKEN and Used in the Development of TIMKEN'S Amazing New "Mirror Finish". Measures to One Millionth of an Inch (.000001")

The "Profilograph" operates on a simple optical-mechanical principle. Essentially it consists of (1) a fine diamond point which acts as a tracer or detector, moving over the surface of the specimen being measured. (2) an optical system which magnifies the movements of the detector. (3) a camera which permanently records the magnified movements of the detector.

In order to record irregularities in the finely-ground surfaces of Timken Bearings, a vertical magnification of 2000 to 1 is used. This permits the accurate measurement of irregularities down to 1 to 2 millionths of an inch.

» «

TIMKEN Bearings have always been noted for the finely-finished surfaces of the rollers and races. Now Timken has gone still further and produced contact surfaces of such extreme fineness that only the term "mirror finish" can adequately describe them.

The main obstacle to obtaining such ultra fine finishes heretofore has been the absence of any instrument capable of accurately determining the extent and nature of the minute surface irregularities left by the action of cutting tools and grinding wheels. The development and perfection of the "Profilograph" has removed that obstacle.

As its name indicates, the "Profilograph" measures and records the profile of any finished or semi-finished surface, showing the peaks, medials and valleys in highly magnified form.

Since these initial irregularities, in Timken Bearings, represent an average surface variation of only a few millionths of an inch, it is evident that extreme precision is required in the measuring instrument. As a matter of fact, the "Profilograph" can detect and measure surface irregularities to within one millionth of an inch.

This improvement in finish is now being applied in the manufacture of Timken Bearings, but as considerable new equipment is required, its application to our entire production must necessarily be gradual.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

TIMKEN TAPERED ROLLER BEARINGS

COPYRIGHT 1935 BY THE TIMKEN ROLLER BEARING COMPANY

Four Papers Choose Different Presses . . . But All Agree on

GOODRICH PRINTERS' ROLLERS

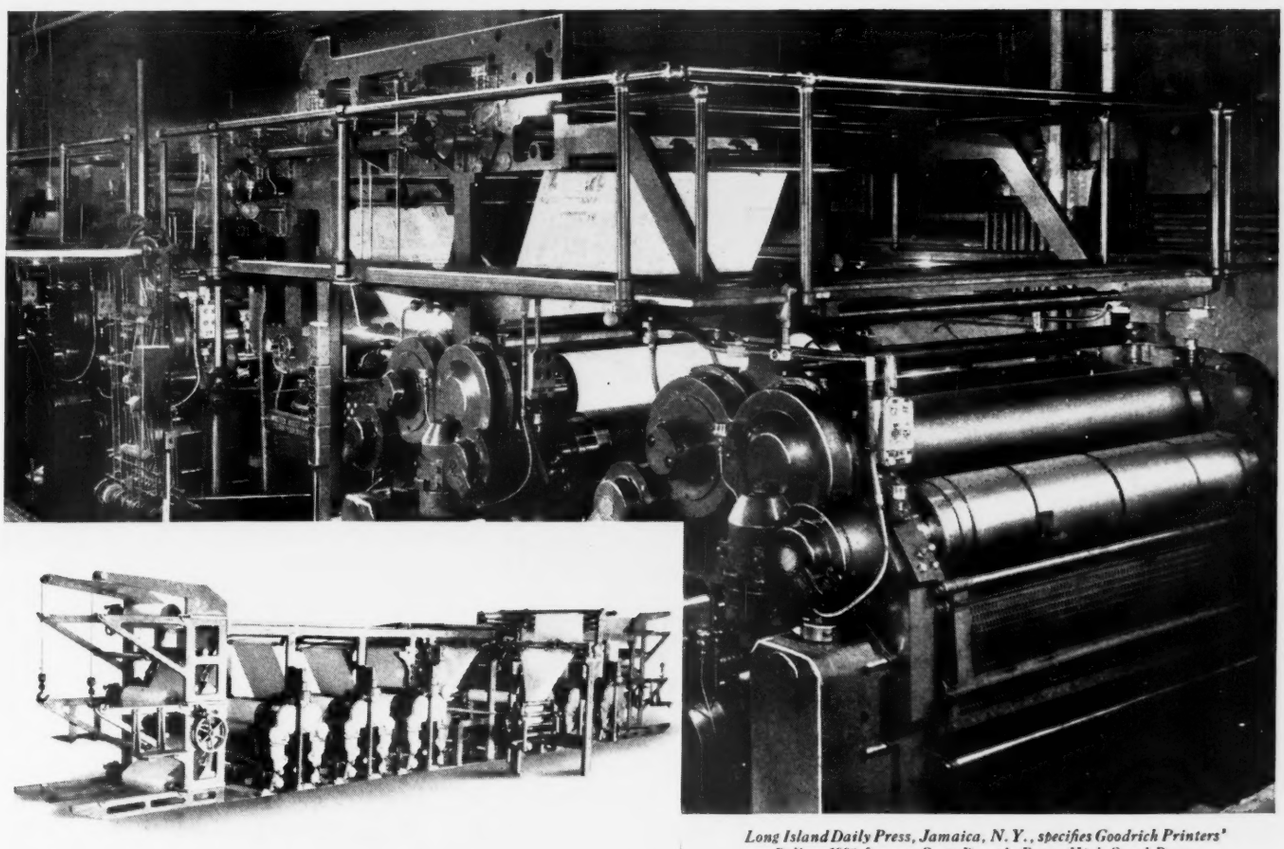
UNANIMOUS choice for Goodrich Printers' Rollers! Why? Two papers—Athens (Ohio) Messenger and The Long Island (N.Y.) Daily Press—were old customers. Experience had shown them that these rollers make for lower costs and better printing. The other two—Wooster (Ohio) Record and Wilkes Barre (Penna.) News—were newcomers. Before buying they checked with other papers, verified for themselves the reports that Goodrich Printers' Rollers, regardless of climate, improve the performance of any press and reduce maintenance costs to a minimum.

Goodrich Printers' Rollers lower printing costs because they eliminate shut-downs for resetting and washup, are unaffected by temperature changes, will not melt, and after years of use may be reground to give added service. The sharp, clean-cut printing, resulting from their use, gives new "eye appeal" which will be both noticed and appreciated by your advertisers and readers.

Efficiently operated newspapers the world over recognize these facts—as is evidenced by their specifying Goodrich Printers' Rollers on all presses, both new and old. Pressroom foremen, business managers and publishers alike have learned that they may expect finer printing and a bigger return on their investment with the use of these rollers.

Whether you are planning to purchase new press equipment or want to improve the performance of the old—specify Goodrich Printers' Rollers.

In addition to the two presses shown, the Wilkes-Barre News of Wilkes-Barre, Pa., has a new Hoe Sextuple Super-Production Press, and the Athens Messenger, Athens, Ohio, has a 24-page Goss Unitube Press, both equipped 100% with Goodrich Printers' Rollers.



Long Island Daily Press, Jamaica, N. Y., specifies Goodrich Printers' Rollers 100% for new Scott Decuple Extra-High-Speed Press.

New Duplex 24-page Unitubular Press for the Wooster, Ohio, Daily Record, equipped 100% with Goodrich Printers' Rollers.

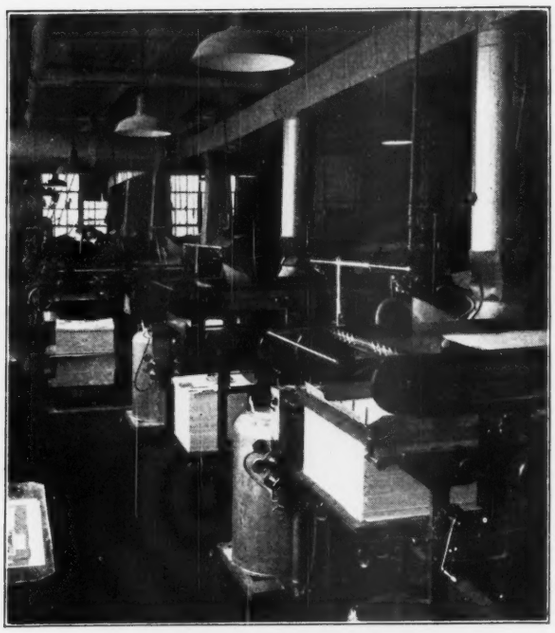
NILES & NELSON, INC., EXCLUSIVE DISTRIBUTORS
75 West Street, New York · 400 West Madison Street, Chicago, Ill.

Goodrich *Printers'* Rollers

STOP

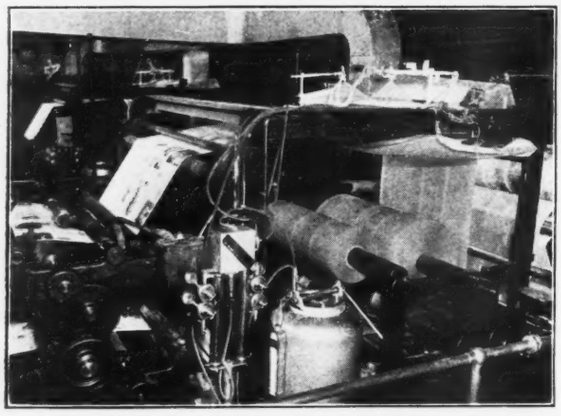
INK OFFSET
SMUDGING
SLIPSHEETING
INK-DOCTORING
RACKING WINDING

Increase Press Speeds with the



Battery of Miehle Automatic Horizontal Presses Now "No Offset" equipped for Quality Printing.

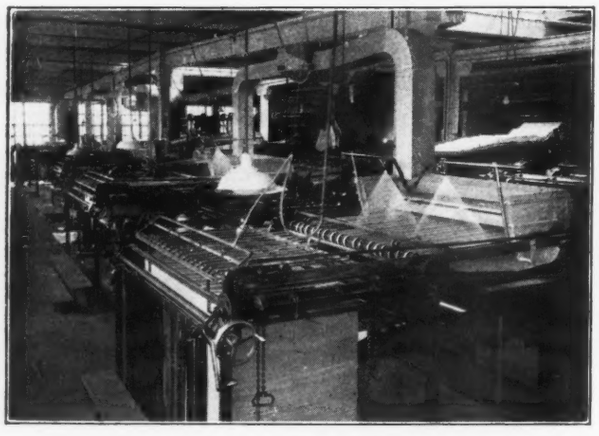
Paasche "No-Offset" Process



Three Goss 4-Color Magazine Presses—"No-Offset" Equipped for Better Impressions at Lower Cost.

"NO MATTER what size press you have, it can now be equipped for the Paasche "No Offset" Process **at a price you can afford to pay.** Regardless of the unit selected—whether it is a large fixed unit or a small portable to be used on different presses—you will have the advantages that only the incomparable Paasche "No Offset" Process can give.

With the Paasche "No Offset" Process, broken delivery promises because of ink offset difficulties are avoided. Increased press speeds, even though using the heavier inks (spot varnish and metallic inks, too), without slipsheeting, ink doctoring, racking or winding. Quality of printing improved; no ink dimmed by thinners, no impressions marred by slipsheeting.



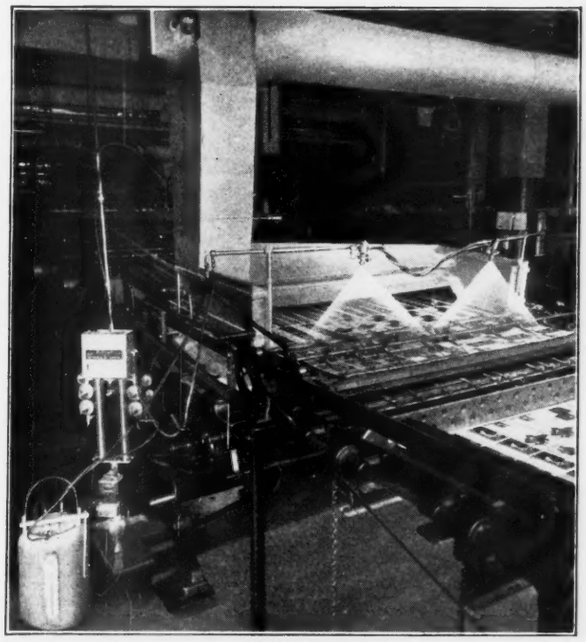
A Completely "No-Offset" equipped Carton Plant who have eliminated offset, smudging, racking, and winding.

Write today for full information regarding the Paasche "No Offset" Process. Learn of the newest developments that make it possible for you to have the vital benefits that only the Paasche "No Offset" Process can give.

Paasche Airbrush Co.

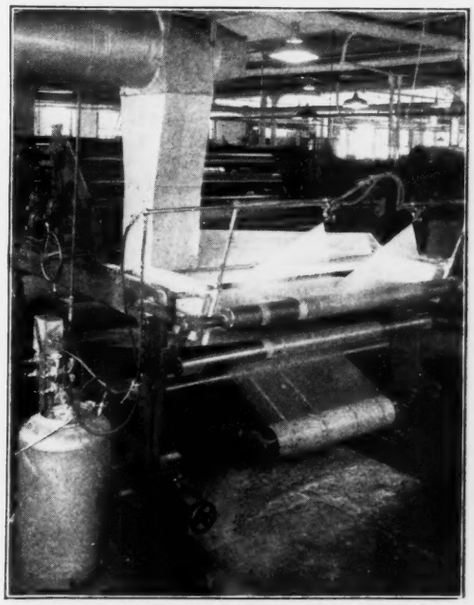
"NO OFFSET" DIVISION

1909-31 Diversey Parkway, Chicago



Showing unit installation of "No-Offset" Equipment that is saving thousands of dollars annually.

Now Available to Fit Any Press

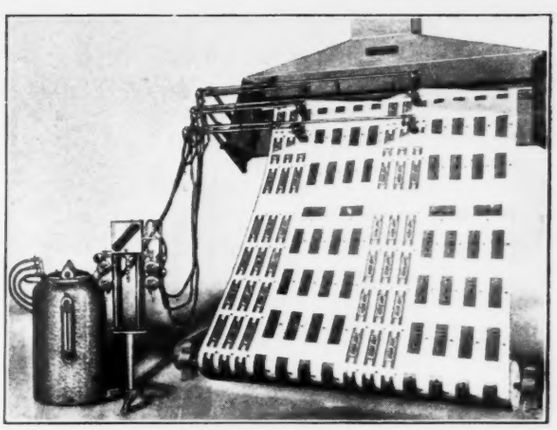


A portion of bread-wrapping plant—"No-Offset" Equipped for turning out highest quality bread wrappers.

Paasche "No-Offset" Process

Your Paasche "No Offset" installation will pay for itself quickly—most likely in a few months. Annual savings of over $3,600.00 on a single press have been reported. Hundreds of enthusiastic users are making handsome returns on their investment with the Paasche "No Offset" Process, of which a few are listed below—

Manz Corporation
W. F. Hall Printing Co.
Michigan Carton Co.
Western Printing & Lithographing Co.
Poole Bros.
Robertson Paper Box Co.
Court Square Press
Reginsteiner Corp.
Central Waxed Paper Co.
F. A. Bassett Co.
Diamond Match Co.
Forbes Lithographing Mfg. Co.
Ohio Match Co.
Schmidt Printing Co.
Universal Match Corp.
Individual Drinking Cup Corp.
Imperial Box Co.
National Folding Box Co.
A. George Schulz Co.
Chicago Label & Box Co.
Bloomer Bros. Co.
Independent Pressroom
Kable Bros. Co.
Arrow Press, Inc.
McGill Lithographing Co.
Unz & Co.



"No-Offset" unit for high speed rewinding presses such as Clayborne, Kidder, Meisl, etc.

Battery of Miehle 2-color presses that is completely eliminating ink offset and smudging without slipsheeting.

Paasche Airbrush Co.

"NO OFFSET" DIVISION

1909-31 Diversey Parkway, Chicago

COTTRELL

"ARE DOING THINGS"

THEIR PRINTING PRESSES ARE DEFINITELY ABREAST OF THE TIMES IN THIS DAY OF MECHANICAL WONDERS

In the magazine world they are building presses operating at the fastest speeds at which good printing can be done. These presses print in black, two, three, four and five colors. Products are folded or delivered flat.

These presses produce the same quality of printing and accuracy of folding that has made them famous for more than Eighty years—Operating faultlessly *every hour of the day.*

●

They are building presses printing in black and one color to operate at speeds from *6500 to 15000* cylinder revolutions per hour.

●

Their sheet feed, four color presses are running commercially at speeds of *4000 to 5500* sheets per hour.

●

Their roll feed, four color presses are running commercially at speeds of *4500 to 10000* revolutions per hour.

These presses can be seen any day—Every Day—in regular operation. They are not mere figments in the imagination of high powered salesmen or engineers.

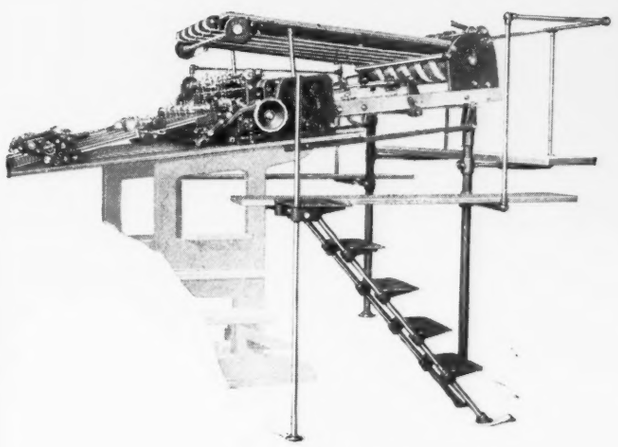
★ ★ ★ ★ ★

C. B. COTTRELL & SONS COMPANY

25 EAST 26th ST., NEW YORK • WESTERLY, R. I. • 332 S. MICHIGAN AVE., CHICAGO

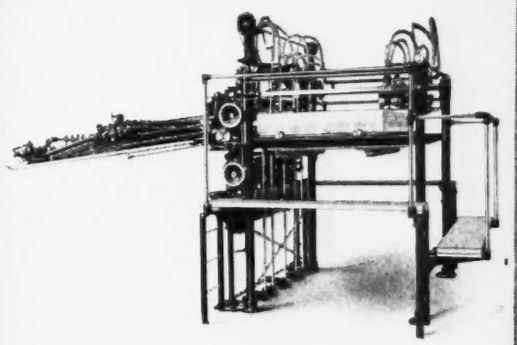
Engineered to match the precision, speed, and economy of fast modern equipment.

CHRISTENSEN PRODUCTS



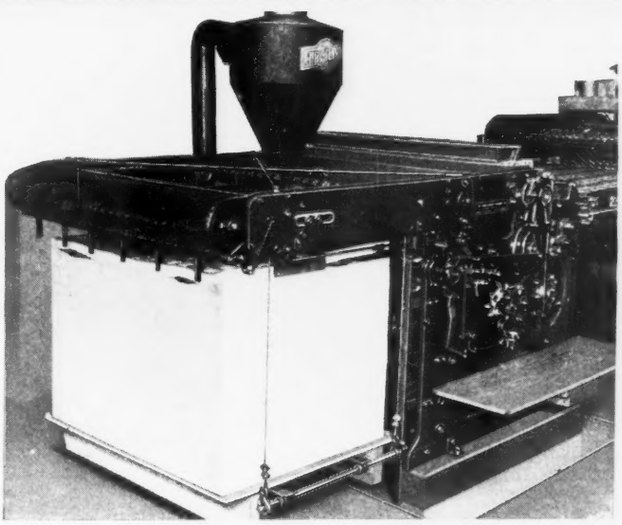
CHRISTENSEN CONTINUOUS FEEDER

Positive, accurate feeding . . . . . Practically all adjustments can be made while the machine is in operation . . . . . Thirty-two features.



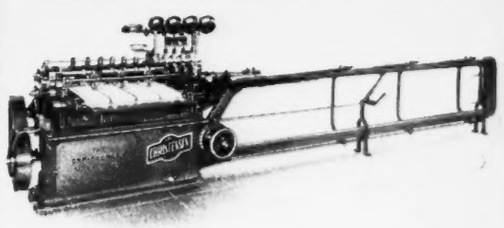
CHRISTENSEN SUCTION PILE FEEDER

A positive, simple, trouble-proof pile feeder. Precision-built, accurate, and unusually accessible in every part. Rigid construction insures long and trouble-free life.



CHRISTENSEN HIGH-SPEED BRONZER

Synchronizes with high-speed presses, through timed delivery with gripper control. Produces perfect work, without interruptions on long runs.



CHRISTENSEN GANG WIRE STITCHER FEEDER

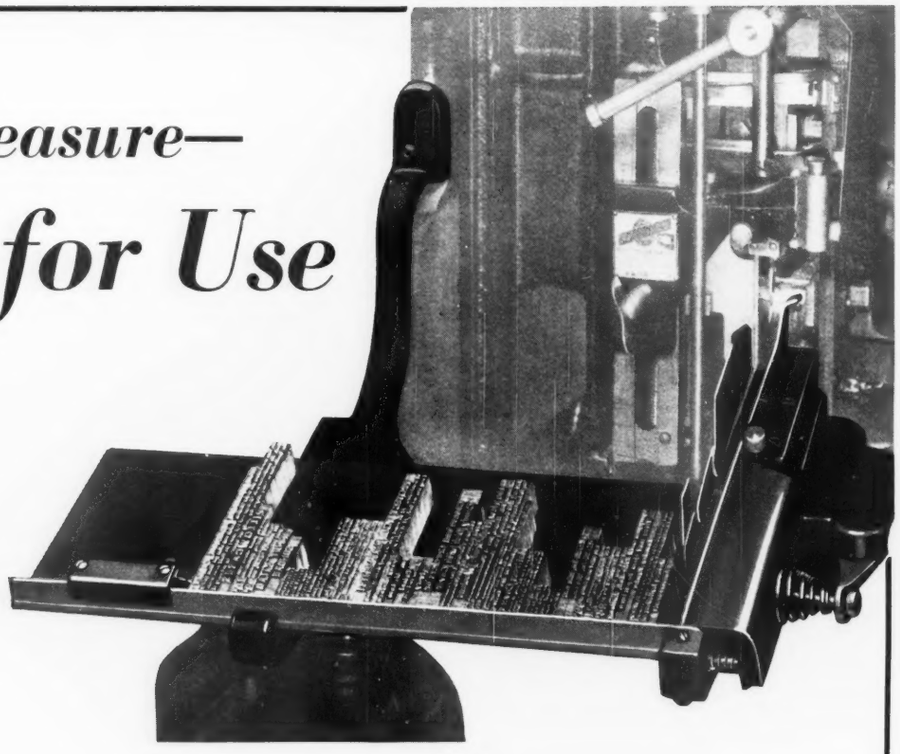
A high-speed machine with gang head, performing up to 9000 operations per hour. Inserting and saddle stitching done automatically in one operation.

THE CHRISTENSEN MACHINE COMPANY

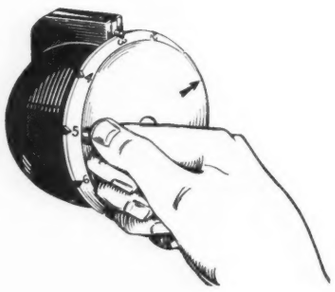
100 FOURTH STREET, RACINE, WISCONSIN

BRANCH OFFICES AND DISTRIBUTORS IN UNITED STATES AND CANADA

Any Measure—
Ready for Use



The Result of Automatic Slug Sawing *Plus* Simplified Measure Control



MEASURE changing, with the Mohr Lino-Saw, is simplicity itself. Turn the conveniently placed dial, and left-hand vise jaw, assembler slide and saw move in unison to the measure desired—to points as well as to even pica measures. One quick setting instead of three!

With the Mohr Lino-Saw, all slugs are cast capacity length. Bled lines and ruined mold liners and side knives, caused by failure to change ejector blade to correspond, are eliminated.

APPLIED to ad or job machines, the Mohr Lino-Saw automatically saws every odd-measure slug as ejected—sends it to the galley completely finished and ready for immediate use. Broken-measure composition . . . regular or quadded or centered matter . . . goes direct to make-up without detour or delay.

Measure-changing, too, is simplified by the Mohr Lino-Saw dial control, which combines and synchronizes all adjustments necessary when going from one measure to another. Speed of operation is coupled with convenience and trustworthy accuracy.

Picture the practical results of these features: Broken-measure lines —any number, any length—instantly available without hand sawing; last-minute corrections moving swiftly from galley to proof press or form; run-arounds and complicated set-ups accurately fitted at the linecasting machine, saving needless resetting. Advantages like these explain why the Mohr Lino-Saw is considered indispensable in progressive plants, large and small, throughout the world; why the trend is to make it standard equipment on every odd-measure machine added to the line.

Write, today, for information on the latest Mohr Lino-Saw—Model D—engineered with over 100 recent improvements and refinements to meet the most exacting requirements of users. Mohr Lino-Saw representatives are located in all parts of the United States and in principal foreign countries. The name of the one nearest you will be furnished upon request.

Mohr Lino-Saw Company

609-613 WEST LAKE STREET
CHICAGO, ILLINOIS

CLINE ELECTRIC MFG. CO.

MORE THAN A QUARTER CENTURY OF SERVICE TO THE PRINTING AND PUBLISHING INDUSTRY

WESTERN OFFICE
CROCKER FIRST NAT'L. BANK BLDG.
SAN FRANCISCO, CALIFORNIA

CLINE SYSTEM

EASTERN OFFICE
220 EAST 42nd St.
NEW YORK CITY

MAIN OFFICE: 211 WEST WACKER DRIVE
CHICAGO, ILLINOIS

A COMPREHENSIVE SPECIALIZED ELECTRICAL SERVICE TO THE PUBLISHER

CLINE SYSTEM UNIT TYPE PRESS DRIVE

Patented and Patents Applied For

An Individual Motor Drives Each Unit and Each Folder in Any Combination
No Press Drive Shaft—No Back Lash
Perfect Acceleration
Perfect Slow Down
Perfect Automatic Brake

CLINE HIGH SPEED PASTERS, REELS and AUTOMATIC TENSION

Patented and Patents Applied For

Used in Prominent Plants
No Running Belts—Plenty of Room
Tension Adjustable from Press Room
Quick Roll Stop from High Speed

CLINE SYSTEM UNIT TYPE NEWSPAPER PRESS DRIVES and TENSIONS

Originated, Patented and Perfected by Cline

For over thirty years the Cline Electric Mfg. Co. have been furnishing electrical equipment, including Standard Double Motor Drives and Automatic Controllers and accessories for newpaper presses. For more than ten years they have been furnishing reels with tensions arranged to make flying pasters at reduced speed of the press, and have therefore been in a position to coordinate paper feeding devices with press control and make layouts of such coordinated equipments to give the greatest possible flexibility of press combinations as well as operation. Cline engineers have therefore had experience in a great number of plants. This, together with the standardized Cline equipment, has resulted in publishers, engineers, architects and press manufacturers recognizing that the engineering work of this service is a very important factor.

The coordination between the reels with automatic tension for pasters for high-speed presses, together with the Cline Unit Drive, gives flexibility of press combinations in a most efficient manner, and should interest any prospective purchaser of presses.

CLINE DOUBLE MOTOR DRIVES FOR MAGAZINE AND DECKER TYPE NEWSPAPER PRESSES

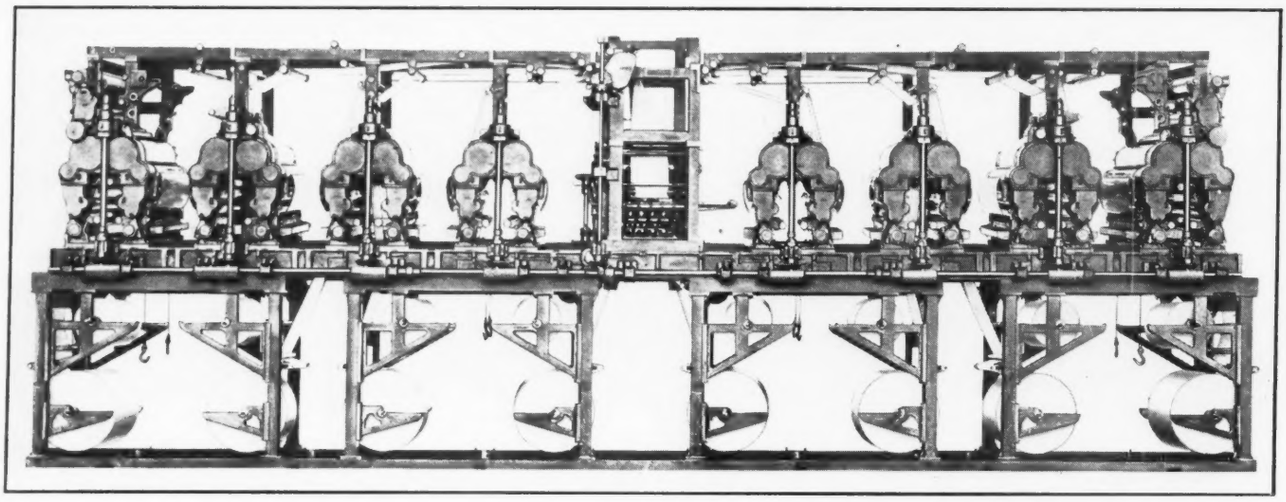
The Cline System is the Most Logical for Efficient Operation and Control of the Modern Newspaper Plant

THE CLINE SYSTEM INCLUDES

Unit Press Drive and Control
Double Motor Drive and Control
Magazine Type Single Motor Control
Special Color Press Control
Stereotype Motor Equipment
Totalizing Counter

Cline Reels and Automatic Electric Tension
Cline High Speed Pasters
Paper Roll Core Adapters
Paper Roll Conveyors
Plate Conveyors and Droppers
Typesetting Machine Drives

TELL US YOUR PROBLEMS—OUR ENGINEERS HAVE THE EXPERIENCE AND FACILITIES TO SERVE



32 p. Duplex "Unitubular" Press on Substructure With Two Color Cylinders

ALL DUPLEX PRESSES

ARE BUILT FOR

COLOR

WITH

HIGH NET PRODUCTION • CLEAN DESIGN • STURDY CONSTRUCTION • VERSATILITY • ECONOMY • AND MAXIMUM EFFICIENCY

SUPER DUTY INTERCHANGEABLE "UNITYPE" PRESS: a fast metropolitan semi-cylindrical machine available in any combination of printing and folding units required. Color printing equipment can be applied at any time.

"TUBULAR" PRESS: known the world over for its flexibility and high quality of print. Built in all page capacities from 4 pages to 48 pages. Delivers all products in multiples of two. Excellently adapted to color printing, only one plate per page per color to register.

"UNITUBULAR" PRESS: the most flexible press ever offered. Page capacity limited by pressroom space only. Available in any combination of printing and folder units desired. Can be adapted to nearly any pressroom limitation. Color equipment easily applied and register is readily maintained. The "UNITUBULAR retains all of the inherent economies of the "TUBULAR" with many added advantages.

FLAT-BED WEB PERFECTING PRESSES: high speed and one way machines. Can be built as 8 or 16 page equipments. Extra color available on all types. Print directly from the type forms, no stereotyping required.

For Full Particulars—Write

Duplex Printing Press Company

BATTLE CREEK, MICHIGAN

SAN FRANCISCO **CHICAGO** **NEW YORK**

*THIS ISSUE

of **PRINTING EQUIPMENT ENGINEER** was set on the Monotype Type-setting Machine, and most of the display type used in the advertisements and headings was cast on Monotype Type-Casting Machines.

Monotype Makes These Production Units For Printers

COMPOSING-ROOM EQUIPMENT

Monotype Typesetting Machine—Sets type in justified lines in all sizes from 4 to 18 point and up to 60 picas in length.

Monotype Type-&-Rule Caster—Casts rules, leads and slugs in strips or cut to measure, in all sizes from 1½ to 12 point. Makes type, all sizes 14 to 36 point.

Monotype Material Making Machine—Casts leads and slugs, rules, decorative borders, single-column rules and dashes, etc., in continuous strips or cut to measure, in sizes from 1 to 18 point.

Monotype-Thompson Type-Casting Machine—Casts type, ornaments, quads and spaces in all sizes from 6 to 48 point.

Monotype Giant Caster—Casts type, quads and spaces in all sizes from 14 to 72 point; makes precision metal furniture in all sizes from 14 to 72 point.

PHOTO-MECHANICAL EQUIPMENT

Monotype-Huebner Vertical Plate-Coating Machine—Coats plates used for printing on offset presses.

Monotype-Huebner and Monotype-Directoplate Darkroom Cameras—Make negatives for use in offset printing and gravure.

Monotype-Huebner Layout and Register Table—Used in making layouts and registering negatives for Registering Vacuum Frame.

Monotype-Huebner Registering Vacuum Frame—Transfers images to predetermined position on offset printing plates.

Monotype-Directoplate Offset Proving Presses—Used for proving stones or press plates to be used in offset printing and lithography.

Monotype-Directoplate Simplex Photo-Composing Machine—Used for single and multiple exposure of negatives on plates for printing on offset presses.

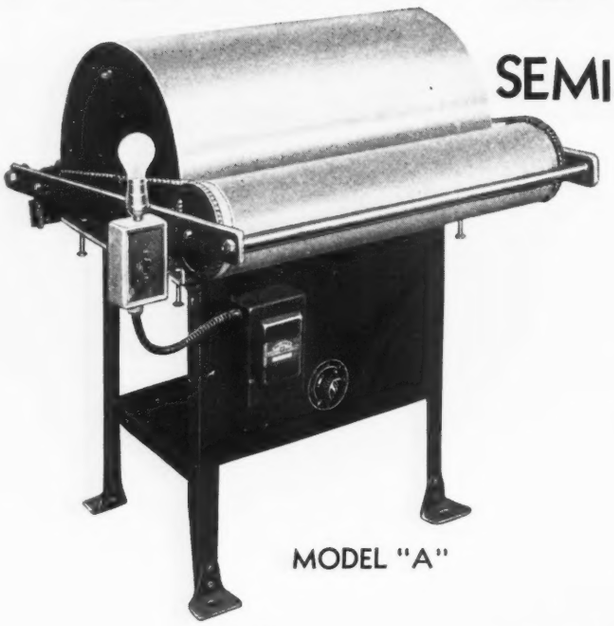
For Complete Information and Descriptive Folders Write to

LANSTON MONOTYPE MACHINE COMPANY

Monotype Bldg., 24th at Locust Street, Philadelphia, Penna.

{ Composed in the Monotype Sans Serif Series }

FORM-O-SCORCH



MODEL "A"

SEMI-CYLINDRICAL MODELS

Model "A"—Selective heat, giving a thousand different stages. Scorchrite Timer.

MODEL "B" – Three heat manual control.

Model "C" – Selective heat, giving a thousand stages of heat. Outside removable heating units. Scorchrite Timer.

FLAT MODELS

MODEL "F"

Model "F" -The flat Form-O-Scorch machine is made in three sizes: for light work, for regular newspaper work and with a 200 lb. sectional cover for Metropolitan papers.

MODEL "S"

TUBULAR WORK

MODEL "S"

Designed especially for use with tubular presses, this machine has met with amazing success.

This machine operating with centrifugal force produces perfectly prepared mats.

"The Scorcher Specialists of the Trade"

AMERICAN PUBLISHERS SUPPLY

BOX 131 — WEST LYNN, MASS.

The new FORM-O-SCORCH

Quickest ◆ Most Efficient ◆ Most Economical

OFFERING

CENTRIFUGAL FORCE

Model "SE"
SEMI

EXPRESSLY designed to meet the demand of Metropolitan newspapers, this scorcher with its exclusive features of centrifugal force is the most modern and efficient machine manufactured for the preparation of newspaper matrices.

Spun at a high rate of speed, NINETEEN HUNDRED AND TWENTY POUNDS OF PRESSURE created by centrifugal force are exerted and distributed evenly over the ENTIRE SURFACE OF THE MAT. This pressure eliminates lost borders, brings out details of half-tone and letterpress and smoothes the mat into perfect contour.

CENTRIFUGAL FORCE IS THE ONLY METHOD BY WHICH THIS ABSOLUTE UNIFORMITY CAN BE ASSURED. (See Story on Page 47.)

The heated air circulation arranged in this scorcher is unique as mats may remain in the tube for fifteen or twenty minutes without showing signs of discoloration. And yet, tests have been made with the machine set to prepare a mat perfectly in fifteen seconds! Heated air circulated by a fan at the bottom of the tube insures uniform scorching while a thermostat governs the heat and prevents burning or deterioration.

THERE IS A

FORM-O-SCORCH MACHINE

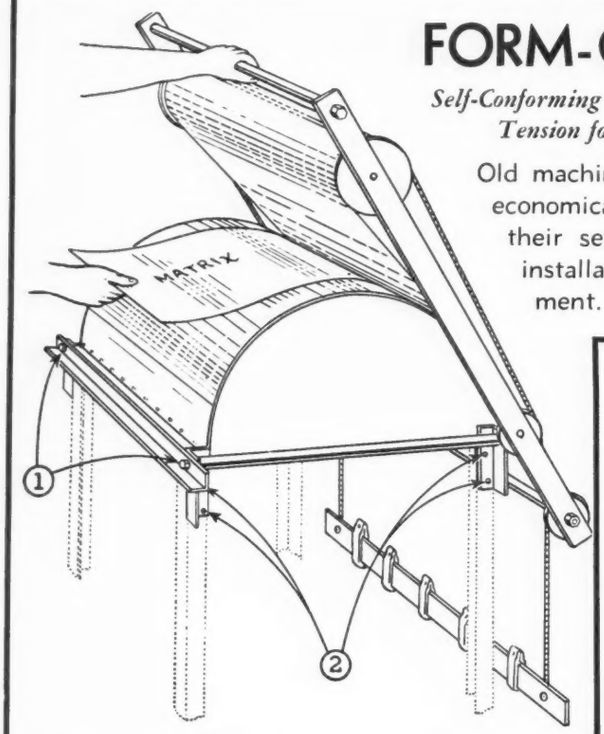
FOR EVERY PURPOSE

FLAT — SEMI-CYLINDRICAL — TUBULAR

WRITE FOR DETAILS

AMERICAN PUBLISHERS SUPPLY

BOX 131 — WEST LYNN, MASS.



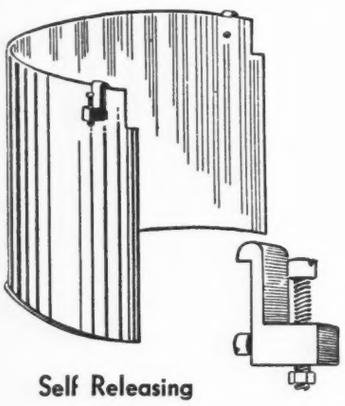
FORM-O-SCORCH

Self-Conforming Cover, with Adjustable Tension for Speed Scorchers

Old machines can be easily and economically renovated and their service doubled by the installation of this attachment.

SPECIAL
FORM-O-SCORCH MACHINES

to accommodate any mat curvature, built on special order. Both the turtle-back and the centrifugal may be designed to accommodate register blanks, forms or salesbook work. Details on application.



Self Releasing

Clark's
Patented Steel Tails

•

Exclusively manufactured by A. P. S. for years with patented features obtainable in no other sheet. We are the sole manufacturers of these tails and are equipped with special equipment that is unexcelled for high quality precision work. We have no agents and grant no licenses. Insist on the genuine self-releasing pouring sheets; obtainable only through A. P. S.

A CORDIAL INVITATION

is extended to the trade to visit our plant at any time: to see Form-O-Scorch machines in the making, to see the intricate processes of making steel pouring sheets, to watch our battery of cutting machines slicing packing felt strips and to look over our tremendous stock.

ALWAYS A COMPLETE STOCK

Asbestos, Cloth, Paper and Thread
Belting
Blanket Punch
Blotter, Tissue and Brushes
Bumping Pads
Cellophane
Chisels
Circular Saws
Conveyor Wire
Cork Molding Blankets
Cut Mounting Tissue
Cutting Rubbers and Sticks
Depthometer
Direct Pressure Molding Felt
Drawsheets
Drills
Dryers
Dry Matrices
Dry Mat Storage Box
Dust Blower
Electroptypers Rubbers
Form Trucks
Fuzon Packing Felt
Graphite
Grinder
Gummed Packing Felt
Hand Mitts
Heating Units
Ink Hose
Ink Pump
Jig Saw Blades
Keyboard Rollers
Linotype Parts
Make Up Rule
Mallets
Mat Facer
Matrix Sealing Tape
Matrix Shears
Metal Flux
Metal Trucks
Nails and Tacks
Oiling Pads
Packing Felt
Packing Felt Moisteners
Paper Rewind
Paper Roll Trucks
Paste
Photo Flash Lamps
Plate Truck
Plain Packing Felt
Planer Blocks
Press Blankets
Press Tape
Pressed Wool Molders
Proof Press Ink and Blankets
Pyrometer
Routers and Router Bits
Router Belts
Rubber Molding Blankets
Rubber Creepers
Scorchers
Sharpening and Grinding Side Planes
Speed Scorcher Attachment
Stereo Equipment for job plants
Stereo Pot Metal Units
Switches
Tailboards
Tape Couplers
Thermostats, Timers and Wire
Type High Gauges and Line Gauges
Woven Wool Molders and Creepers

AMERICAN PUBLISHERS SUPPLY
WEST LYNN, MASSACHUSETTS

BURGESS CHROME MATS

Specializing on Your Mat Problems

THE DRY MAT was very much a hit-or-miss proposition until Burgess came into the picture.

•

Instead of being satisfied, Burgess studied the problems that were known to beset every stereotype department:

MOULDING SCORCHING
SHRINKAGE CASTING, Etc.

•

Our laboratories set out to see what it could do about these things. The result was the Burgess Chrome Mats—new mats—new formulae. These new mats showed remarkable results from a manipulation and printing standpoint.

•

In fact they were the first real improvement in mats that the trade had seen in some ten or more years.

•

They didn't end all stereotype troubles but they did increase the stereotyper's ability to produce better results, so much so that there has been more advance in high capacity printing from stereotype plates during the short existence of the Burgess Chrome Mat than all the preceding years.

•

The Burgess Cellulose Research Laboratories are untiringly working on your problems, trying to find and develop ways of making better and more fool-proof mats. Not only are their results incorporated into the Chrome Mat—but they are constantly building up a wealth of laboratory tests and experience invaluable to every stereotype department.

•

Burgess Representatives, with this knowledge to back up their practical experience, can be of great assistance, if permitted, in overcoming your problems.

•

Burgess Chrome Mats coupled with Burgess Service is an unbeatable combination. You owe it to yourself to find out NOW what they can do for you.

•

Call for a Burgess Man today — there's no obligation whatever.

BURGESS CHROME MATS
A LABORATORY PRODUCT

BURGESS CELLULOSE COMPANY
FREEPORT, ILLINOIS

Pacific Coast Representative, RALPH LEBER,
426 Polson Bldg., Seattle, Washington

A238

BURGESS CHROME MATS

BURGESS CHROME MATS

BURGESS CHROME MATS

Current Orders

for

WOOD AUTOPASTERS

London Daily Mail 24
New York Times 21
Philadelphia Evening Bulletin 60
105

All of Them Repeat Orders

●

Have YOU Investigated the Autopaster ?

●

WOOD NEWSPAPER MACHINERY CORPORATION
Makers of Fine Newspaper Machinery
501 FIFTH AVENUE, NEW YORK

THE CHALLENGE MACHINERY CO.

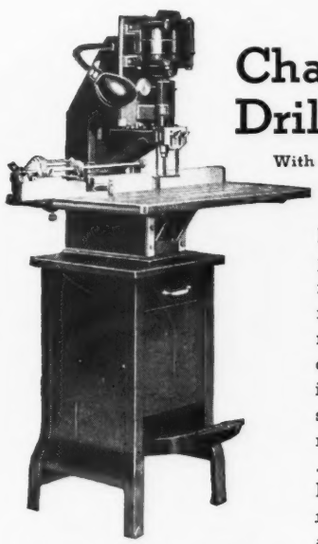
GRAND HAVEN MICHIGAN

CHICAGO
17-19 E. Austin Avenue

NEW YORK
200 Hudson Street

Everything FOR THE PRINTER . . .

FROM CUTTERS TO QUOINS . . . . ALL ONE STANDARD CHALLENGE QUALITY



Challenge Paper Drilling Machine

With Slotting and Round Cornering Attachments

Handles all classes of round-hole work—designed to simplify operation—any one can run it . . . Drills 200,000 or more holes per hour. Patented multiple side guide permits drilling of as many as six holes in as many positions at one setting . . . Hollow steel drills range in size from 1/8 to 1/2 inch . . . Minimum spacing between holes is 0 . . . Provides automatic disposal of chips—adjustable lighting—sturdy steel stand—low cost attachments for slotting, slitting, V-slotting and round cornering.

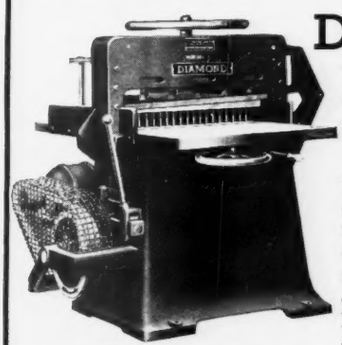
Patented, Nos. 1,808,472—1,928,383

Challenge Potter Proof Press

Built to production press standards with cylinder geared to reciprocating bed. Permits accurate, firm, controlled impression. Built in three sizes: No. 1, 12⅞ x 25 inch; No. 2, 17¼ x 25 inch; No. 3, 25 x 25 inch. Furnished with or without automatic inker.

Challenge-Poco Proof Press

Produces clean, sharp proofs. Built in two sizes: No. 0 for the smaller shops, 12⅞ x 18¼ inch; No. 2 for heavier duty, 18 x 25 inch. Adjustable impression and reciprocating bed motion give distinct proofs of type, cuts or plates. Sold with or without steel or wood stand.



DIAMOND Power Paper Cutter

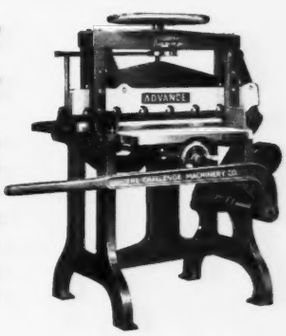
Built in 3 Sizes: 30½, 34½, 36-Inch

Features of safe, easy operation; massive construction, and accurate adjustments identify the Diamond Power Cutter as an economical producer. Double-motion starting lever, knife fully guarded, double equalizing brake safeguard operator and stock. Duplex steel measuring tape; easily-squared, full-width inter-locking back-gage assure accuracy. Fast, positive action.

NEW 36-INCH MODEL

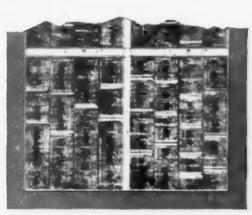
Patented, Nos. 1,836,104—1,895,440—1,923,293

Advance Lever Paper Cutter



Easy operation that saves time and conserves strength is the big feature of this cutter. Long counter-balanced lever, just the right height, enables operator to obtain the greatest leverage and use his weight to best advantage. Built in two sizes: 26½ and 30½ inch.

Patented, Nos. 1,948,821—2,003,597



SHOWING HI-SPEED QUOINS IN FORM

Challenge Hi-Speed QUOINS

Save 70 to 80% on lock-up . . . do the work of 5 to 8 ordinary quoins. The indicator dial shows register positions, one for each point of expansion up to 12 points. Self-locking; cannot slip. Made in 6 sizes: 4½, 6, 7½, 9, 10½, and 12 inches. Ideal for locking up where space is limited.

Why Not Eliminate Bindery Problems?

Why Not Stop Rubbing and Scratching on Folding Machines?

Braden Sutphin Non-Scratch Black Makes This Possible

Qualifications:

Can be run full strength color without offset.

Will dry like steel—but will not crystallize.

Can be overprinted perfectly and also serves well as an overprint black.

Sets almost instantly, dries rapidly.

Does not dry on press.

Can be used on process work—first or second down.

Made in light, heavy or medium body with any desired toner cast.

A post card will bring you a trial of this black that eliminates bindery and press room griefs.

●

THE BRADEN SUTPHIN INK CO.

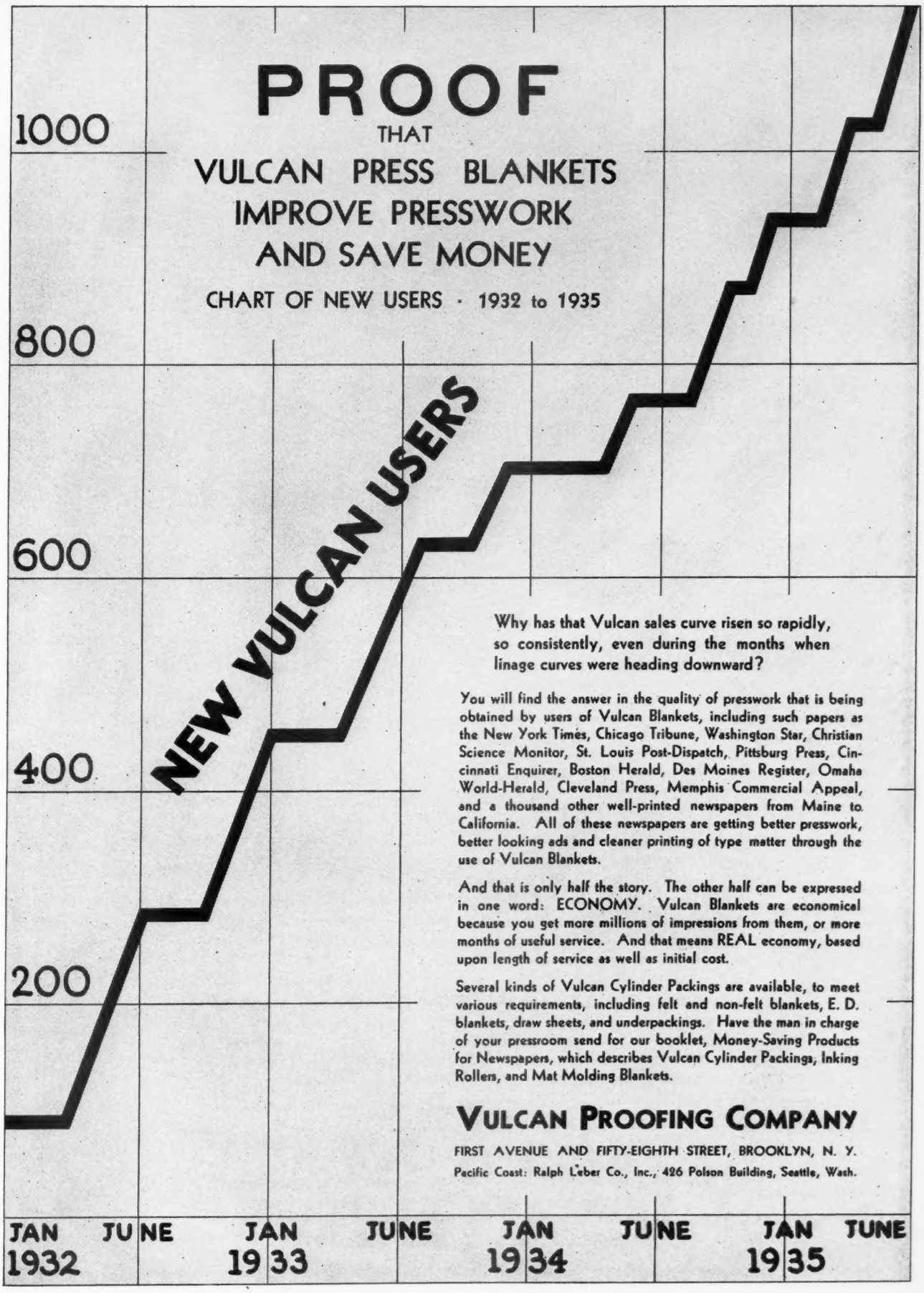
1736 East 22nd Street . . . . . Cleveland, Ohio

PROOF

THAT

VULCAN PRESS BLANKETS IMPROVE PRESSWORK AND SAVE MONEY

CHART OF NEW USERS · 1932 to 1935



Why has that Vulcan sales curve risen so rapidly, so consistently, even during the months when linage curves were heading downward?

You will find the answer in the quality of presswork that is being obtained by users of Vulcan Blankets, including such papers as the New York Times, Chicago Tribune, Washington Star, Christian Science Monitor, St. Louis Post-Dispatch, Pittsburg Press, Cincinnati Enquirer, Boston Herald, Des Moines Register, Omaha World-Herald, Cleveland Press, Memphis Commercial Appeal, and a thousand other well-printed newspapers from Maine to California. All of these newspapers are getting better presswork, better looking ads and cleaner printing of type matter through the use of Vulcan Blankets.

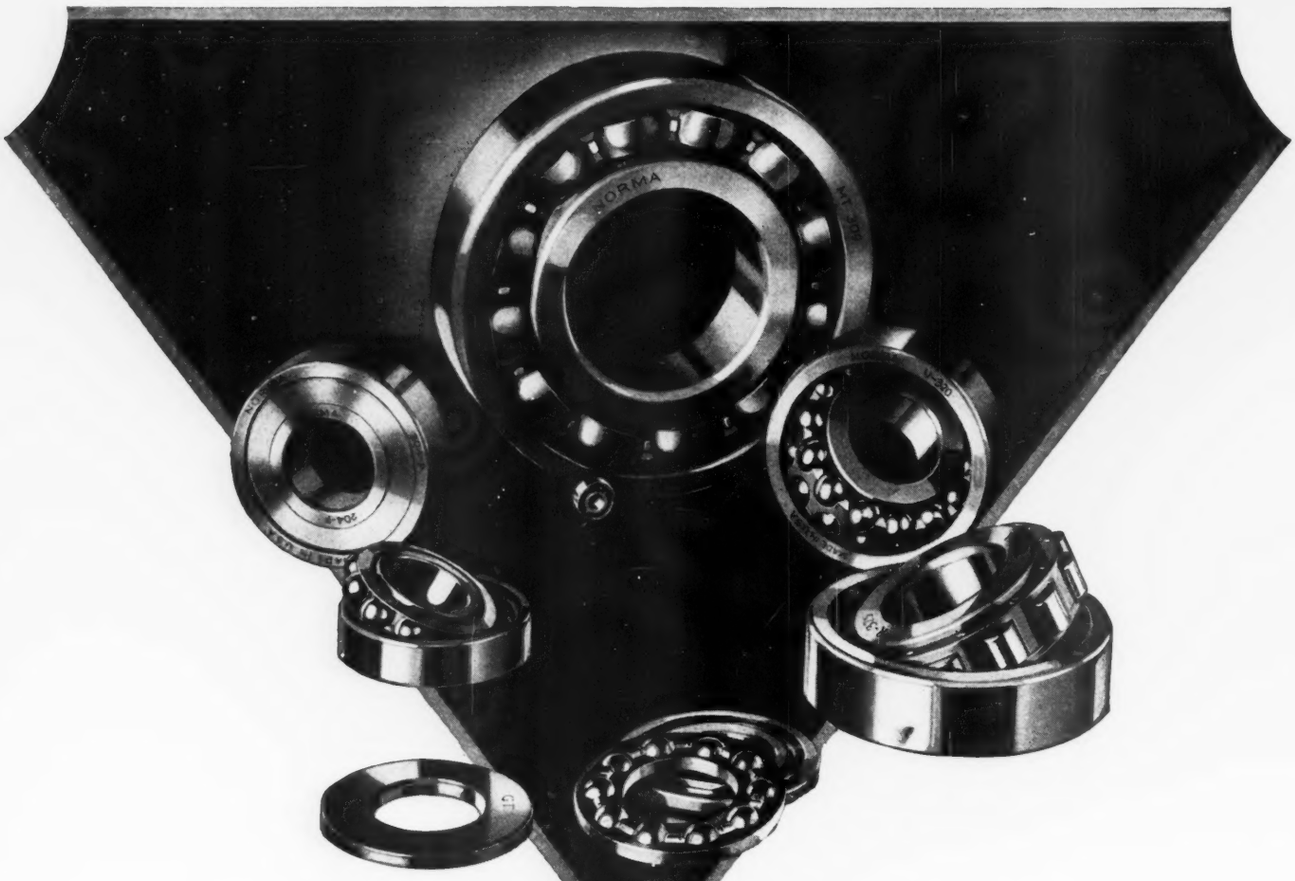
And that is only half the story. The other half can be expressed in one word: ECONOMY. Vulcan Blankets are economical because you get more millions of impressions from them, or more months of useful service. And that means REAL economy, based upon length of service as well as initial cost.

Several kinds of Vulcan Cylinder Packings are available, to meet various requirements, including felt and non-felt blankets, E. D. blankets, draw sheets, and underpackings. Have the man in charge of your pressroom send for our booklet, Money-Saving Products for Newspapers, which describes Vulcan Cylinder Packings, Inking Rollers, and Mat Molding Blankets.

VULCAN PROOFING COMPANY

FIRST AVENUE AND FIFTY-EIGHTH STREET, BROOKLYN, N. Y.

Pacific Coast: Ralph Leber Co., Inc., 426 Polson Building, Seattle, Wash.



PRECISION BEARINGS
in 108 distinct series

To the machinery world, NORMA-HOFFMANN offers the most complete and comprehensive line of anti-friction bearings in America—108 distinct series—a PRECISION Bearing for every load, speed and duty.

Many of these have been pioneered, or specially developed, by NORMA-HOFFMANN engineers to meet specific requirements as revealed by advancing methods in machine design, manufacture and operation.

In times past, engineers often had to adapt their designs to the comparatively few standard bearing types then available. Today—with the wide range of types and sizes afforded by the standard NORMA-HOFFMANN PRECISION line, such compromise is seldom necessary.

In the 108 PRECISION Series are included: ball, roller, needle and thrust bearings; open, closed, and angular contact bearings; radial and self-aligning types; single and double row types; felt-protected, shielded, snap ring and self-sealed types. The size range is from 1/8- to 21-inch bore, embracing both metric and inch sizes. PRECISION Ball and Roller Bearing Pillow Blocks are also available in an extensive range of sizes.

Write for the Catalog. Let our engineers work with yours.

"NORMA-HOFFMANN"

PRECISION BEARINGS

BALL. ROLLER AND THRUST

NORMA-HOFFMANN BEARINGS CORP'N., STAMFORD, CONN. U.S.A.

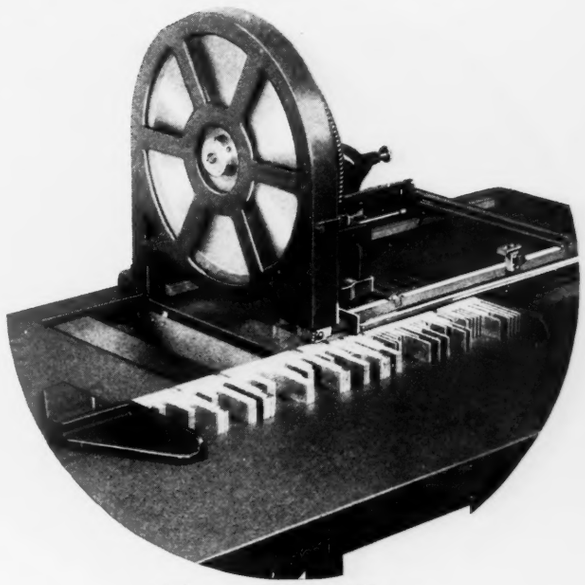
A-3127

ROUSE Time Savers

THE Rouse Band Saw will cut a full galley of slugs to variable lengths in 35 seconds.

No gauge setting or clamping is necessary. A galley of slugs is placed on the sawing table. A single movement of the aligning bar positions the slugs for cutting. The slug lengths are automatically selected and each slug cut to exact measure. Feeding to the Band Saw is mechanical. There can be as many different measures as there are slugs, yet the entire operation is the same.

The secret of the Rouse Saw slug length selection lies in a small tapered projection cast on each slug on the type-setting machine. This is similar to a period, which positions itself at the designated length during the casting operation. A patented Rouse vise jaw serves as its mold. The jaw is readily interchangeable with the standard vise jaw of the linotype or intertype machine. No mechanical changes are necessary.



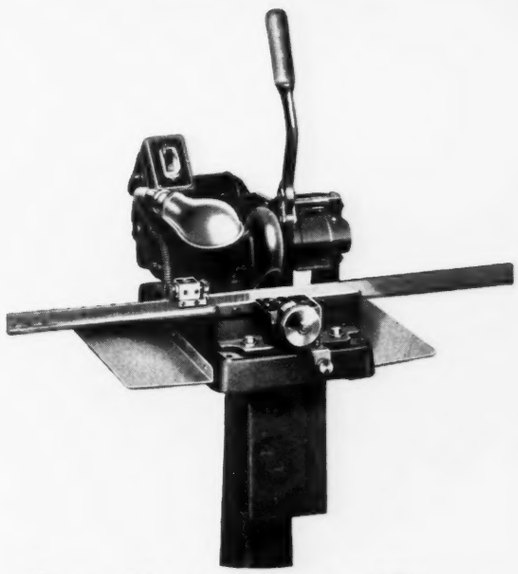
Rouse Band Saw

TWENTY miters a minute are easy with the Rouse Vertical Rotary Miterer.

Built for high speed production, this modern machine miters metal or brass rule up to 24 points in thickness, without previously cutting rules to length. Right and left miters are completed at a single operation.

An automatic clamp insures speed, accuracy and safety. Positive point gauge sets instantly and locks by points from 3 to 83 picas. An extension gauge entends the work range to 144 picas, with intermediate graduations which permit adjustment by quarter-points.

Work is visible to the operator during the mitering process. This tends to easy operation and permits cutting of hundreds of interesting rule combination and decorative designs from blank rule.



Rouse Vertical Rotary Miterer

SEND FOR CIRCULARS ON LEAD AND RULE CUTTERS . . . HAND MITERING MACHINES . . . COMPOSING STICKS . . . TYPE GAUGES . . . COMPOSING AND MAKEUP RULES . . . NEWSPAPER FILE RACKS . . . NEWSPAPER BASE . . . PAGE FRAMES AND PAGE FRAME CABINET . . . SENNETT POSITIVE ASSEMBLER.

Rouse Cast Iron Newspaper Bases will stand up under the heaviest dry mat pressure, day after day. They maintain a high degree of accuracy, and are practically indestructible. Light in weight, they are easy to handle and are time and labor savers. Rouse Cast Iron Bases are used by hundreds of prominent newspaper publishers. They are available in labor saving fonts or special sizes to order. Write for quotations. Use your letterhead or the coupon below.

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. . . the No. 23 and the No. 22 Vandercook Electric Proof Presses produce 40 GOOD Proofs per Minute.

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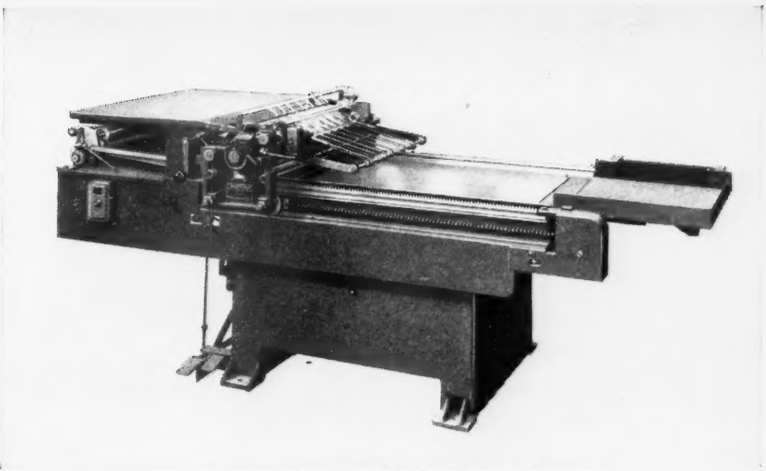
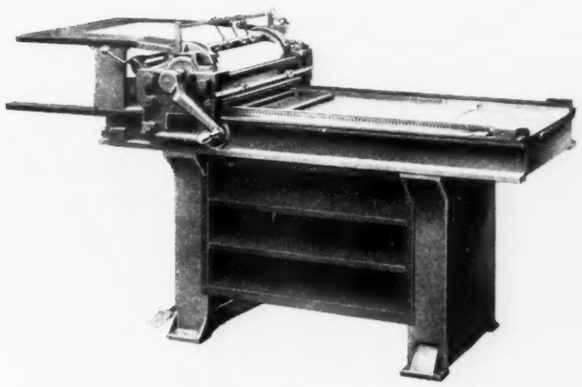
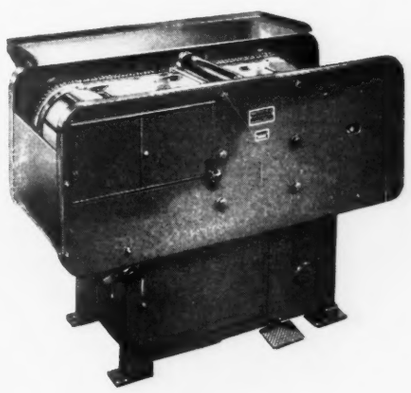


No. 325A VANDERCOOK PAGE PROOF PRESS



No. 320G VANDERCOOK HAND OPERATED PROOF PRESS



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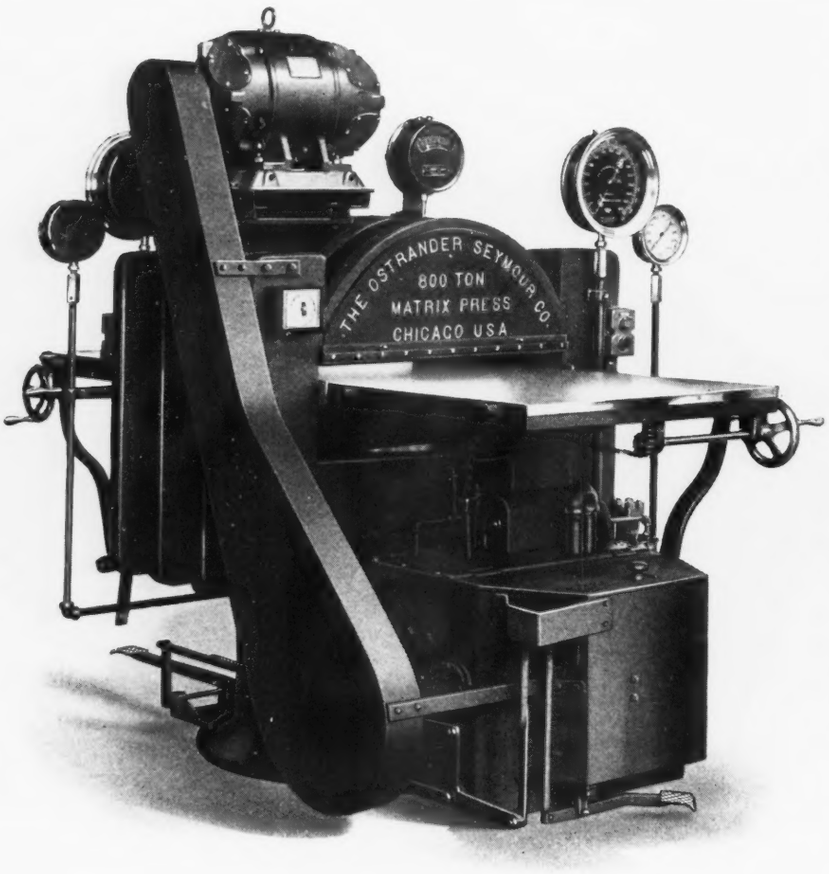

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SPECIFICATIONS

Size of Platens—32 x 25 inches,
Clearance between Uprights—32 inches,
Opens to 1⅞ inches; closes to 1/16 inch,
Maximum Pressure—800 tons on 22 inch ram,
Floor Space—4 feet by 7½ feet,
Weight, assembled—12,000 pounds.

Standard Equipment—

Five horse-power, 1750 r.p.m. motor, controller and front and rear push-button stations, Three-strand Texrope transmission, with safety guard, Electrically heated and thermostatically controlled lower platen; twelve 1250 watt dry elements; automatic heat control from room temperature to 600° F.

Water-cooled insulating platen between heated platen and ram.

Manually operated front and rear sliding aprons,

Front and rear hand and foot operating controls,

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Timeostat timing device,

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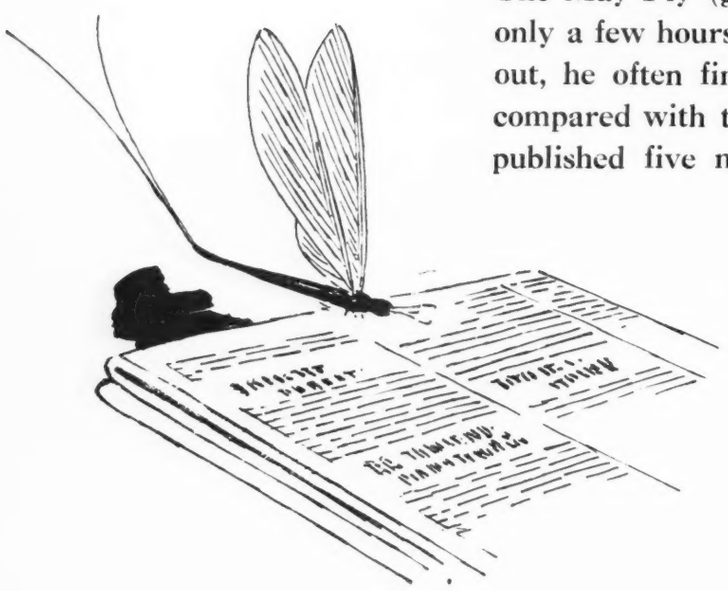

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NEWSPAPERS at their best are about the shortest lived merchandise—keenly read when hot—cast aside in a few minutes to bring, perhaps, 20 cents per 100 pounds from the junk man.

Editions carrying spot news on important big events are shortest lived of all. Five minutes delay may render such an edition old when it reaches the street.

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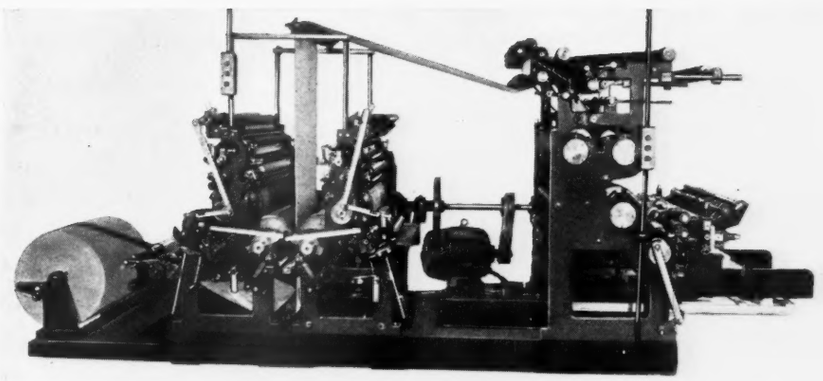
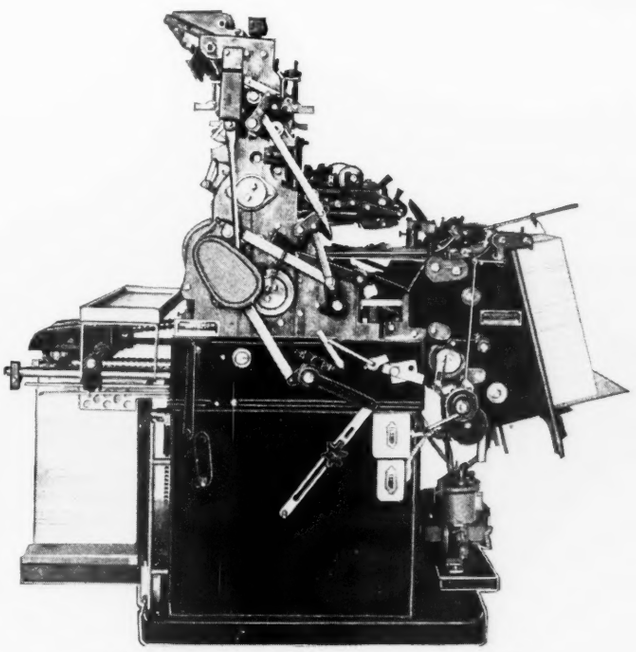
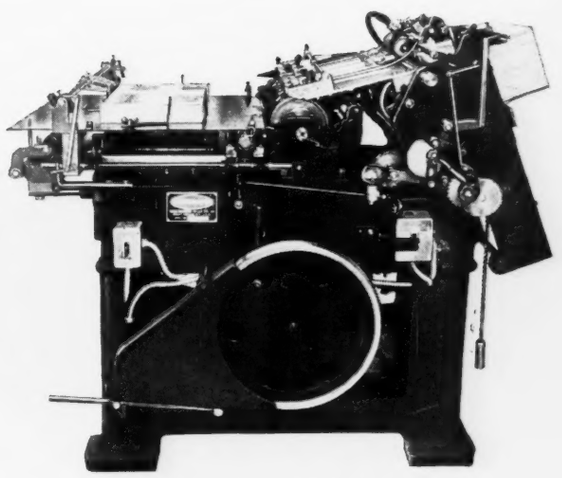


LARGE WEBENDORFER 22 x 34 PERFECTING WEB UNIT REEL FEED OFFSET PRESS WITH MAGAZINE FOLDER.



WEBENDORFER 14 x 20 OFFSET JOBBER



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22 x 26	**American made by**	and up

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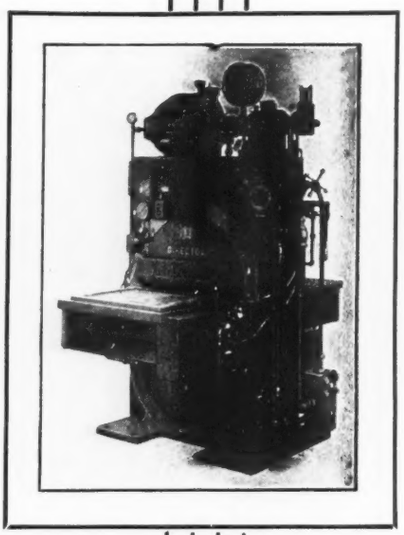

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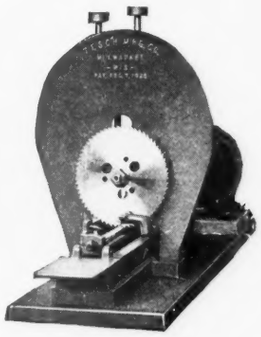

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"They Pay for Themselves"

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Associate Member
National Printing Equipment
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NOVEMBER 1935
Volume 51 Number 2

Printing EQUIPMENT Engineer

Trade-Mark Registered U. S. Pat. Office

Published by Don Will
Edited by Mac Sinclair

A Technical Publication for Mechanical Executives Responsible for Printing Production, Equipment and Supplies in the Commercial, Magazine, Private Plant and Daily Newspaper Fields.

Established 1910

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The key men in your organization will appreciate looking over the pages of this magazine. Perhaps one of them will be able to put some particular technical idea to good use in your plant.

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☐ ..... *Superintendent Electrotype Department*
☐ ..... *Superintendent Press Room*
☐ ..... *Bindery Foreman*
☐ ..... *Manager*
☐ ..... *Purchasing Agent*

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William R. Willets

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J. C. Dunn

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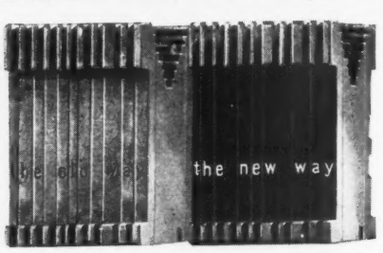

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The sledge usually is not associated with functions entering into everyday printing plant production. It is not a particularly handsome tool, to be sure. But in capable hands it may be made to help the Printing Industry in two ways. It may be used as an instrument for demolishing worthless printing machinery. The other important function is that skids, rollers and planks may be positioned properly when economically useful machinery is being installed in the printing plant. And the thought is: Both uses are constructive.

The Sledge—

[An Editorial]

THE printing plant mechanical executive is interested in seeing his industry prosper. While he may feel he is only a small factor in the scheme of things, yet he should study all the vital problems which affect the prosperity and stability of his means of livelihood. So *Printing* Equipment *Engineer* publishes the Plan for Handling the Surplus Used Printing Machinery Problem as presented by the Committee on Used Machinery and approved at the October meeting of the National Printing Equipment Association, Inc.

It is evident that the Printing and Printing's Capital Goods Industries have been in need of an organized method for eliminating worthless and outworn printing machinery of all kinds. It is stated in the Plan that on a conservative estimate there is at least 100,000,000 in dollars of obsolete machinery being operated in plants producing printing unprofitably, which, if it were produced on modern economical machinery, would yield a profit to the individual printer, tremendously improve the liquid position of the whole industry and would increase its buying power and its ability to distribute dividends to the owners of printing establishments.

The Plan contemplates acquisition and deliberate destruction of printing machinery which has exhausted its economical productivity. Included, also, in the proposal is an Underwriting Plan for the acquisition of machinery in plants which must be disposed of for any one of several reasons. By this means such machinery as has economic value will be distributed through regular dealer channels and that part which is obsolete or junk, will be scrapped.

Please note that the Plan is proposed upon a purely voluntary basis, *i.e.*, its success will depend wholly upon the cooperation of the printer, the dealer, the second-hand dealer and the manufacturer of printing equipment.

It has been pointed out that the Plan is designed to benefit the Printing Industry. At the same time it is designed to help the suppliers of that industry recover from the effects of a too-tenacious use of obsolete equipment. On this basis it is only fair to assume that those who participate in the printing industry should help each other. It is a cooperative matter.

The Outline of a Plan For Handling the Surplus Used Printing Equipment Problem appears upon the next succeeding page. The statement preceding the Plan gives reasons for creation of ways and means for solving the problem.

The Problem Of Surplus Used Machinery

A Discussion Embodying a Remedy

THE Graphic Arts Industry, embracing printers and publishers and producers and suppliers of printing equipment, is today affected by perhaps no greater problem than the menace of the low-priced second-hand machines.

Apart from general business conditions, prices established on the basis of low investment in printing and publishing plants have set ruinously competitive low levels of return. Owners have watched their capital shrink and almost disappear. Employees have suffered reduced hours and wages or even the entire loss of employment.

For a time the general complaint was directed against "over-equipment." Now over-equipment is generally recognized as a surplus, —not of modern machines, but of obsolete or depreciated equipment,—which for one reason or another, has not only come upon the market in large quantity, but in even larger quantities is retained for use in plants of all sizes and standards.

So nation-wide is this condition that the problem has grown beyond the possibility of solution by any one locality or interest. No city or section is exempt from the peril arising out of existing conditions.

Without discounting the importance of other business problems, it is asserted tha the used or second-hand equipment question is basic. It will be found at the root of many other vexatious conditions.

It is customary in the industry to depreciate the value of machinery used in the mechanical processes of printing, on a flat basis at the annual rate of 10 per cent. of its installed cost and to treat such depreciation taken, as a part of the cost of the product of such machinery.

The likelihood of replacement of such machinery by new machines of modern design within a ten-year period is remote. Thus it is often the case that such machinery remains capable of productivity because of its excellence of design and manufacture. Consequently, by trade custom, it is held to have some value even after its normal depreciated period of life.

It is sound business practice to allocate to costs, and to reserve against capital asset valuation, a yearly depreciation on a flat basis of 10 per cent. of the installed cost of printing machinery. But experience teaches that such a rate is high in determining a fair and reasonable value of such machinery after years of use.

The intent is not to recommend or suggest that a machine capable of satisfactory economical production should be disposed of or traded in merely because of age or because its normal or fixed depreciated life has ended.

Conversely it is submitted that a machine incapable of satisfactory economical production should be completely destroyed on the ground and thus prevent its re-entry into use in commercial or other business and undertakings. And the time for this action arrives when, through excessive use or improper care of handling or obsolescence, a machine has ceased to be an economical factor in production.

The observance of these conditions would prove a potent factor in protecting, promoting, fostering and advancing the interests of the printers and publishers, manufacturers and producers of printing equipment of all kinds used in any phase of the Graphic Arts Industry; and also in improving the conditions under which the Industry is carried on, developing fair and just competitive methods and insuring the industry against unfair and unjust burdens and exactions and result in the stabilization of employment.

So that all Members of the Graphic Arts Industry may have before them an explanation and summary of the main features of this plan, the following is submitted.

Outline of a Plan Submitted by the National Printing Equipment Association *to deal with the Surplus Used Printing Equipment Problem*

Introduction

The major portion of the available surplus used printing machinery and equipment rests in the hands of printers and publishers and other principals engaged in the Graphic Arts Industry. In most cases, they are the outright owners of it. For the most part, such used machinery is offered for sale not through dealers but through other and various unorganized mediums. The lack of a central organized outlet for such used machinery unfavorably affects the entire Industry and Trade in many ways.

Object and Intent

As an aid to the Graphic Arts Industry to provide through an authenticated source for the disposition of all kinds of used machinery at fair and justifiable valuations, it is proposed that there shall be organized a clearing association to effect a more satisfactory situation in the common interest.

It is not the intent of this plan to interfere with the right of owners to sell or deal with surplus machinery with whomsoever they may choose, nor is it the intent to prevent dealers in used machinery from purchasing surplus used machinery in any manner they may see fit, and trade in it, or require any manufacturer, dealer, or importer to participate in or be subject to this plan except by his voluntary action or assent. The success of the plan depends upon voluntary cooperative action on the part of the owners of such used surplus equipment. If it achieves the desired results it will aid the entire Industry and Trade —consumer and producer—to stabilize employment, increase wages, and enlarge purchasing power.

Definitions

Corporation—National Printing Equipment Clearing Association.

Industry—Graphic Arts Industry.

Used Machinery—Surplus used printing machinery and equipment of a capital asset nature.

New Machinery—New printing equipment and machinery of a capital asset nature.

Suggested Plan and Functions

Name of Organization—National Printing Equipment Clearing Association.

Charter under New York or other State Laws.

Membership—To be open to all members of the Printing Equipment Industry and Trade and who voluntarily participate in the plan.

Management and Staff—Directors, Executive Committee, President, Vice-President, Secretary, and Treasurer. The Board shall set up a proper working organization. The management of the Clearing Corporation will be in the hands of a Board of Directors, selected by the Directors of the National Equipment Association.

Headquarters—Maintained at satisfactory location separate from a members.

Dues—There shall be no membership dues.

Members' Obligation—Members of the Association shall agree to honor Certificates of Value issued during their membership period toward the purchase of new machinery manufactured or dealt in by them when and as tendered by the trade within the life of the certificate.

Administration Expense—For the purpose of providing for administrative, clerical and routine expense, including the cost of demolishing used machinery coming under the control of the Association, those members of the Association and others, if any, accepting certificates in connection with the sale of new machinery shall have ratably assessed against them such administration expense over the amount of certificates accepted by them in each fiscal year period of the Association.

Members who have not been called upon to accept certificates shall pay no part of the administrative expense.

Basis of Valuation—Each Member of the Industry and Trade should file with the Association, on forms readily adaptable to his business, a schedule of the allowances he would normally make for used machinery in trade. This would serve as a guide to the Board of Directors of the Association in determining valuations for used machinery for certificate purposes.

Certificates of Value—Where an owner desires to arrange for the immediate disposition of his surplus used machinery, association may issue, at owner's request, a Certificate of Value based on the valuations provided for herein, in full settlement for said surplus used machinery, the disposition of which will then rest with the association. Where a dealer in used machinery desires to sell used machinery to the association, the association may issue therefor, at the dealer's request and subject to inspection as hereinbefore provided, Certificates of Value based on the valuations provided for herein in full settlement for such machinery, the disposition of which will then rest with the association.

Liquidation of Certificates of Value—Certificates of Value shall be honored by all manufacturers, dealers and/or importers of machinery voluntarily participating in this plan, *but only in connection with the purchase of new machinery in transactions where there are no trade-ins* and then in an amount not in excess of five per cent. (5%) of the list price of new machinery purchased by the holders of the Certificate. Where an aforesaid dealer or importer honors a Certificate of Value in connection with the sale of new machinery and/or equipment, the manufacturer of such machinery and/or equipment shall reimburse the dealer or importer who represents him, for the full value of the Certificates taken in trade on the sale of new machinery and/or equipment sold of that manufacturer's make; except that in the case of sales made by dealers or importers under terms of contracts between them and manufacturers, entered into prior to the effective date of this plan, the manufacturer shall arrange with the dealer or importer, who sells his goods, for equitable terms and conditions upon which the dealer or importer shall be reimbursed.

Certificates Unacceptable Except for Machinery—*No Certificate of Value shall be accepted in payment for sale of supplies or equipment of a consumable nature: nor shall such Certificates be accepted in settlement of accounts or notes receivable or other indebtedness: nor shall Certificates of Value be accepted as part of a cash payment in deferred payment transactions.*

Negotiability and Disposition of Certificates of Value—*Except manufacturers, including their representatives and their direct dealers, and importers,* any holders of certificates will be at liberty to sell them to others who may be in the market therefor. Field representatives of manufacturers, dealers, and importers, knowing who is in the market for new machinery, will be in a position to assist these holders to find an outlet for their certificates through such printers or publishers as may be contemplating the purchase of new machinery. The association will from time to time advise the trade of any certificates reported to it as available for resale, also, the manufacturers will receive notices at least weekly from the association of certificates issued. In turn, they will keep their field representatives informed. Holders of certificates will undoubtedly experience but little difficulty in finding a ready market for them.

Maturity of Certificates of Value—Certificates of Value suall cease to have any value after a period of five years from the original date of issue and shall after said date of expiration be surrendered to the corporation for cancellation.

Registration of Certificates of Value—Certificates of Value shall be void unless signed by two separate officers of the association and countersigned by a responsible trust company to be selected as Registrar.

Surrender of Reduction of Certificates of Value by Manufacturers—Manufacturers and their dealers and/or importers direct or through the manufacturers honoring the Certificates of Value shall immediately following receipt of settlement for said new machinery, forward the Certificates of Value to the association for cancellation with a statement of the transaction in connection with which the certificates were taken. If an amount equal to five per cent. (5%) of the list price of new machinery will not entirely exhaust a certificate the purchaser will turn the certificate over to the manufacturer, dealer, or importer who will send it to the association to have the necessary amount endorsed as a debit thereon, following which the certificate will be returned to the purchaser to be held for future use.

Outstanding Certificates of Value—At least weekly the association shall send to Members of the Industry and Trade participating in this plan notices of the issuance of certificates and shall at monthly intervals furnish to such parties a complete list of outstanding certificates showing their current value.

Disposition of Products—Immediately upon the surrender of used machinery to the association under the proposed certificate plan, the association will thoroughly destroy all used machinery coming under its control.

Notice to Manufacturers—Manufacturers shall be duly notified of the disposition of all used machinery coming under control of the association.

The Underwriting Plan

It is hoped that the larger manufacturers will see the advisability of joining a so-called underwriting group.

Where, for instance, an entire plant is being sold through bankruptcy or receivership or voluntary liquidation, the Clearing Corporation should be put in a position to bid for such plant, and thus control the disposition of the machinery; that which has economic value being distributed through regular dealer channels and that part which s obsolete or junk, being scrapped.

This could be accomplished in the following manner:

The manager of the Clearing Corporation learning of a plant which was for sale, would immediately get in touch with manufacturers of equipment, allot to various concerns their fair share of the underwriting, contact them and secure the pledge of their credit for that purpose. Their responsibility to be limited to that percentage of the underwriting which they agreed to assume. Such contracts can be brawn legally, as they are daily, limiting the obligation without making the participants partners each with the other. No capital would be required, as with these underwriting contracts in hand, ample loans could be made at the banks for handling the transaction. Profits, if any, would be retained by the Clearing Corporation for furthering its work and to compensate for losses which would occur in other underwritings.

It would not be the purpose, that such underwriting should result in a profit distributed to the underwriters, but rather that profits should be held to a very modest amount with the major share of the earnings going to the dealers who would perform a real service and a valuable one in re-marketing this machinery.

A list of machinery on hand would be furnished regularly to all registered dealers so that equal opportunity would be afforded to all in the remarketing program.

The value to the industry would be the assurance of the scrapping of the obsolete and uneconomical equipment.

Any and all firms of good credit standing who wish to participate in this underwriting, would be welcomed. All firms, whether they have machinery in the particular plant being purchased or not, should be willing to take underwriting responsibilities for the benefit of the industry as a whole.

Indirectly if this plan were in operation, it would have the effect of strengthening the credit position of printing establishments with banks, if the latter knew that upon liquidation there was a substantial and ready market for the sale of physical equipment.

Objectives

Of National Printing Equipment Association Are Constructive

By Staff Writer

THE National Printing Equipment Association, Inc., whose members represent about 90% of the volume of sales of printing equipment and supplies to members of the Graphic Arts Industry, held its annual meeting at the Waldorf Astoria, New York, N. Y., on October 16.

The Association approved a Plan for Increasing the Consumption of Printing through a Research Foundation. It is expected that this plan will include an active educational program and methods for advertising advertising, and will have the cooperation of other associations like the United Typothetae of America and all its affiliated and non-affiliated organizations in that field, The Lithographers National Association, The National Association of Paper Manufacturers, The National Association of Printing Ink Manufacturers, and other Allied Suppliers of Printing Products and Services.

The Association also approved a comprehensive plan for dealing with the problem of surplus used machinery.

It is expected that this extensive program of constructive activities will meet with the enthusiastic approval of all printers, publishers, advertisers, and manufacturers, and others interested in the printing industry. It is the first move in a definite and constructive endeavor to rehabilitate these allied industries by voluntary efforts.

To carry these objectives into effect the following chairmen were appointed: Harvey D. Best, chairman of the committee to form the Research Foundation; R. V. Mitchell, chairman of the committee to form a Clearing Association to handle the Used Machinery Problem; Thomas R. Jones, chairman of the Committee on Education; Joseph T. Mackey is an ex-officio member of each of these committees.

The following officers were elected: President, Joseph T. Mackey, Executive Vice-President, Mergenthaler Linotype Company; Vice-President, Thomas R. Jones, President, American Type Founders Sales Corporation; Treasurer, James S. Gilbert, President, Dexter Folder Company; and Secretary, James E. Bennet, President, Babcock Printing Press Manufacturing Company.

The retiring president is Arthur Bentley of the Miehle Printing Press & Manufacturing Company served two terms, but remains a director and member of the Executive Committee. Charles Cottrell, acting-president of C. B. Cottrell and Sons Company, Westerly, R. I., was elected director, to succeed his brother Calvert B. Cottrell, 3rd, who died suddenly on October 12. The other directors are: Neal Dow Becker, President, Intertype Corporation; Harvey D. Best, President, Lanston Monotype Machine Company; L. W. Claybourn, President, Claybourn Corporation; R. V. Mitchell, President, Harris-Seybold-Potter Company; Walter A. Sittig, Secretary, H. B. Rouse & Company, and Fred S. Tipson, Treasurer, T. W. & C. B. Sheridan Company.

O. J. Maigne Dies

Oscar J. Maigne, chairman of the board and founder of the O. J. Maigne Co., New York, manufacturers of printers' rollers, died Sunday, October 20, at his home in Rutland, Vt., aged 86.

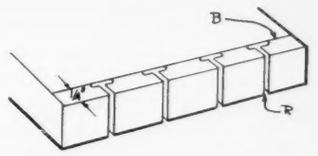


Fig. 1—Book punched with T-slots and ready to receive tapes. R—Punched T-slots ¼ in. from back. B—Folded end sheet in place.

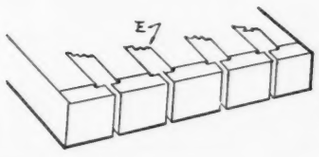


Fig. 2—The ½ in. tapes E inserted and glued down to folded end sheet. Back glued with flexible glue. Back may be rounded or square. See Figs. 3 and 3a.

Binding

Books by the "Neo-Nevett" Tape-Slot System Is Interesting

By Ira D. Pilliard

WHILE touring Canada recently, the writer was shown a number of books, both new and rebound, which had been bound by a new method used quite extensively in England and now being introduced among Canadian printers and binders. The process is known in England as the "Neo-Nevett" Tape-Slot System, and to our knowledge has not reached the United States. Our informant stated our British cousins have perfected a machine that will prepare books for casing-in at the rate of 500 an hour.

Lacking the British equipment, but observing that the various processes appeared not too involved, we proceeded to bind books in an experimental way with the aid of the bindery machines available. The product compared favorably in strength, durability, and beauty with good machine-stitched books. The process has a number of advantageous features and, if and when it becomes more thoroughly mechanized in this country, a place for it will be found among our present systems for certain classes of work.

The first job called for the rebinding of some library books. Cutting the covers away by hand, the books were protected top and bottom by strawboards to compensate for the round that remained and to protect the first and last pages from clamp marks and were then placed in a power guillotine cutter. The fronts of the

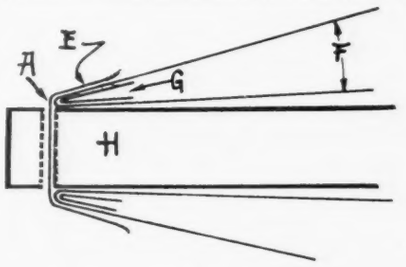
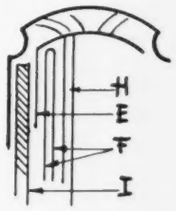


Fig. 3



Grooved Joint Fig. 3a

Figs. 3 and 3a—End views showing relative positions of tapes, folded end sheets, punched signatures and cover boards. A is the punched slot; E is tape; F, the folded end sheet; bleached muslin G reinforces the joint; at H are shown the punched signatures; I is the cover board.

books were jogged firmly against the back cutter guide. A ⅛ in. trim served to cut away the stitches with which the signatures had been sewed. After this operation the books became, to all purposes, "loose-leaf."

The sheets were then fed through a power-punching machine, using the "heads" and the "backs" of the sheets as guide edges. Four "T"-slot punches were

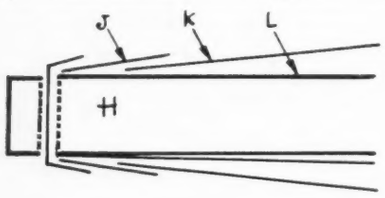
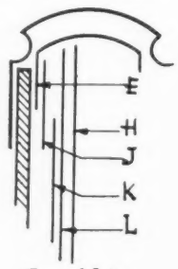


Fig. 4



Grooved Joint
Fig. 4a

Figs. 4 and 4a—End views showing cloth joints. At J *is shown cloth; at* K *board paper, and at* L *the fly leaf.*

employed. When all the sheets had been punched and reassembled, the back of the book appeared as depicted in Fig. 1.

Placing the jogged sheets under pressure, a light coat of flexible glue was applied to keep them in place.* After this coat had been permitted to set, ½ in tapes were threaded down through the "T"-slots, leaving 1½ in. of bands projecting over the upper edge of the book and a like amount for the under side, as at *C*, Fig. 2. The tapes were then tipped down to the new end sheets

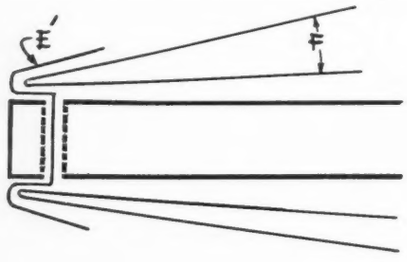
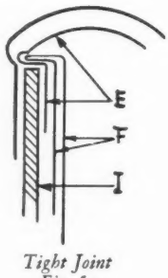


Fig. 5



Tight Joint
Fig. 5a

Figs. 5 and 5a—End views showing tight joint arrangement. E *represents tape folded back and forward over folded end sheet* F.

which had been prepared previously, the books were rejogged, and a second coat of warm flexible glue was applied to the entire back and worked into the slots to hold the tapes more securely.

After the glue had set, but before it had become bone dry, the books were hammered into round and the remaining forwarding and finishing operations made according to regular bindery procedure.

The English machine, we were informed, saws grooves at right angles to the backs; stabs slots running parallel to the back edge, thus completing the "T"-slot; and threads the tapes in operations that follow each other in rapid succession.

Some of the advantages claimed for the system are herewith enumerated:

(a) All signatures and single leaves are held in place with like security. When the signatures of old books become so frayed and worn at the folds as to preclude stitching, this process gives a new lease of life. Maps and plates on new or old work need not be guarded-in or tipped-in.

(b) Where a rounded back is not essential, the books may be left flat, and a limp or a stiff cover added that may be trimmed flush —head, front, and tail—with the inside pages.

(c) The heavy tapes support the inside pages rigidly and prevent sagging when the book is placed upon end in library shelves. For heavy books, the tapes may be spaced as close as 1½ in. apart.

Figs. 4, 4a, 5 and 5a outline some adaptations of the process. However, the methods outlined in Figs. 3 and 3a are the simplest to perform.

Apparently, the process has possibilities in the loose-leaf, the library rebinding, and in the edition fields. The introduction of machines to bring the costs into line with competing processes awaits future development.

*To gain time, the operator may desire to jog the stock carefully, clamp the work securely in a backing press and omit this preliminary gluing operation.

Ethylene Dichloride

To some extent, ethylene dichloride is used as a substitute for benzol in the photoengraving process. In reply to some inquiries, *Printing* EQUIPMENT *Engineer* prints the formula as published in *The Condensed Chemical Dictionary*, which is as follows:

ETHYLENE DICHLORIDE* (Dichloroethane, Dutch liquid; Elayl chloride)
$CH_2Cl.CH_2Cl$.
Color and properties: Colorless oily liquid; chloroform-like odor; sweet taste.
Constants: Specific gravity 1,2823; melting-point -35.3°C.; boiling-point 83.7 C.
Soluble in water, alcohol and ether.
Derivation: By the action of chlorine on ethylene, with subsequent distillation.
Method of purification: Rectification.
Grades: Technical
Containers: Iron drums; glass bottles.
Uses: Organic synthesis; solvent; manufacture of ethylene glycol; anesthetic.
Fire hazard: None.
Railroad shipping regulations: None.

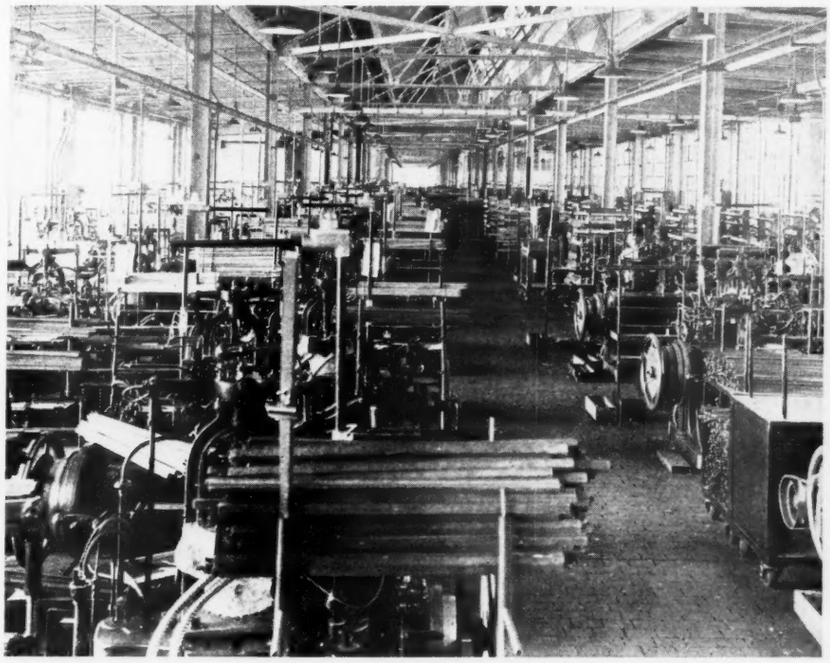
If ethylene dichloride contains a certain percentage of carbon tetrachloride, it constitutes an excellent solvent for waxes, oils, etc., and the mixture may be considered practically non-inflammable except at higher temperatures. Being a good solvent of oils, reasonable care should be exercised by employees using it to keep it off the hands and arms because it will dissolve the natural oils and greases of the skin, causing a dryness which might induce dermatitis. In this respect, it does not differ from other light oil solvents. Kerosene or coal oil is likely to cause the same effect. It is not as poisonous as benzol. Since it possesses toxic properties heavy concentrations of this volatilized solvent should be avoided. Such a condition should not arise in an ordinary size, well ventilated room, but in a confined space (if an appreciable amount of the solvent is used) some precautions should be taken to ventilate the area.

Ethylene dichloride may be used for cleaning multigraph machines and typewriter keys. It is also used as a moth fumigant.

Shober New Branch Manager

Frank W. Shober, for eleven years with American Type Founders Sales Corporation, the last two as manager of the Cincinnati Branch, has been appointed manager of the New York branch of the Company. He will succeed the late George E. Packard. E. P. Dahlinger, for a long time Mr. Packard's right-hand man, has been made assistant manager.

Geo E. Packard, 59, former New York branch manager, died suddenly October 2.



This is a general view of the type foundry where over 250 electrically-heated typecasters are in operation in the plant of the American Type Founders, Elizabeth, New Jersey. It is said this company casts 90% of the movable foundry type used in this country as well as an appreciable percentage of the type used in foreign countries.

Electric

Immersion Units Now Used to Melt Hard Foundry Type Metal

By F. O. BREWER*

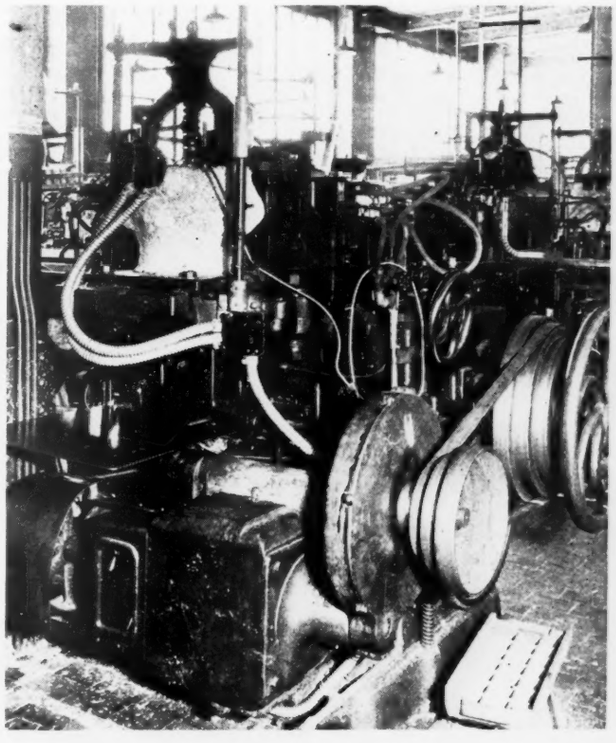
The majority of printers and publishers, particularly composing room and stereotype executives, are familiar with the use of electric immersion units in the casting of stereotype plates and machine composition. Now suitable equipment has been developed and installed for melting the metal and maintaining its proper operating temperature in the crucibles of type-casting machines used for casting hard foundry type. This installation, which is of more than passing interest, has been completed recently in the type foundry of the American Type Founders Company in Elizabeth, N. J.

The American Type Founders Company manufactures approximately 90% of the movable foundry type made and used in this country as well as an appreciable percentage of that used in many foreign countries. The uniformity and accuracy of their type is due to the constant research, the high degree of skill developed by their machine operators and the rigid inspection of all manufactured material.

The American Type Founders Company operate more than two hundred and fifty casting machines. For more than 25 years the company maintained and operated a gas plant under the direct supervision of its own engineers. When it became evident that a consolidation of the Elizabeth and Jersey City plants would effect greater economies in manufacturing operations, the American Type Founders Company asked the General Electric Company to assist in a study of their type production problems. Many factors had to be considered in analyzing the problems aside from operating costs. The American Type Founders Company engineers, among other studies, made an exhaustive study in type-casting problems. The best metal operating temperature under electric heat had to be found for a wide range of work. Hourly consumption of metal in different sized casters had to be tested. An analysis of the metals was necessary in order to study the effects upon the immersion unit to be recommended. The physical size of the crucibles and the best methods for both the distribution of heat and the manner of securing proper insulation to minimize on heat losses, had to be determined.

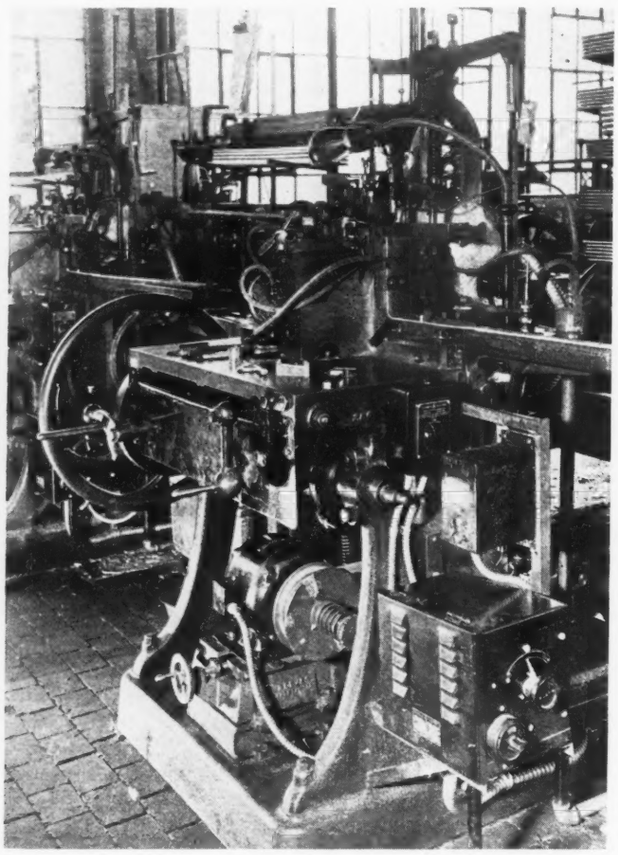
The General Electric Company recognized that these were not problems to be approached in a casual way since there were no parallel installations with which comparisons could be made. At the same time it was felt that the hundreds of fully successful electrically-operated stereotype and metal-melting plants already in use formed a sound foundation and gave every reason to expect that difficulties could and would be overcome.

As a preliminary move, one casting machine was equipped with specially formed Calrod immersion heating units, magnetic control equipment and a special



Rear view of automatic foundry typecasting machine in plant of the American Type Founders Company, Elizabeth, New Jersey. The method of mounting the Calrod Immersion Heaters and Thermostat Capillary are also shown. The metal-melting and temperature maintaining equipment was developed by General Electric Company engineers in collaboration with typecasting experts of the American Type Founders. Note the special insulating material surrounding the metal pot.

*Printing Equipment Specialist, New York Office, General Electric Company.



Front view of automatic foundry typecasting machine in plant of the American Type Founders Company, Elizabeth, New Jersey. In this view are shown the motor drive, motor thermal switch, pot heat control panel and thermostatic control instrument developed by the General Electric Company. The latter instrument actuates the control panel to supply current or to cut it off from the immersion heating elements in the crucible. Tools used in checking accuracy and quality of type may be seen on the table.

type of thermostatic instrument designed to gauge accurately the somewhat higher metal temperature necessary in this type of work. Both the General Electric Company engineers and those of the American Type Founders Company, realized that the first machine was an experiment, subject to modifications and changes as new problems arose.

This machine was put into regular production and for a period of approximately three months a day-by-day record was kept of the current consumption, the pounds of metal cast, the accuracy of temperature control and the uniformity of the product. A number of minor changes were found necessary in the interim.

The results of the preliminary installation clearly indicated the reliability of the electrical equipment. It was found that the dross was reduced approximately 75%, the continuity of production was practically uninterrupted and the product was of uniform quality, due to the accuracy of antomatically maintained temperatures which resulted in excellent net machine production. Certain intangible benefits not entirely unanticipated, were also disclosed in the way of working conditions and the lessened wear and tear on machine parts, due to the new type of crucible insulation which reduced heat losses. Because of the small size of the crucibles the electric type of immersion heater could be readily installed within the pot itself without interfering with machine design or limiting production.

After the first electrical installation had been tested thoroughly from a production standpoint, it was decided that a "bank" of eight machines on regular production work should be equipped to serve as an experimental guide to determine what could be anticipated on an entire plant change-over. These eight machines, installed in the new location provided in the Elizabeth plant of the American Type Founders Company, duplicated in performance the experimental machine.

This study in mass production served to further demonstrate the suitability of the application and the possibilities of economy through a standardization of equipment. Certain modifications were projected to tie in with mechanical changes contemplated in the design of the casting machine.

The preliminary experiments having proved entirely successful, the American Type Founders Company decided to go ahead with the complete changeover and the General Electric Company was instructed to supply the necessary electrical equipment.

The transition to electric melting pots with thermostatically controlled temperatures was necessarily gradual, as production could not be disrupted. At the same time an unprecedented flood of type orders limited the moving of casting equipment to groups of machines which could be shut down for a few days without seriously handicapping the foundry. Approximately six months were required to complete the work. Despite this, the change was accomplished smoothly.

Commenting on the installation, the American Type Founders Company officials state that the move has been thoroughly justified and that the equipment has met every expectation. The type produced electrically is of highest quality in structure, composition and artistry.

Complete Second Addition

At a cost of over $75,000, additions are being made to the office, laboratories and manufacturing departments of the Ideal Roller & Manufacturing Company, Chicago, Ill. Work on the additional 15,000 square feet of space will be completed early in November and constitutes the second enlargement of the Ideal plant within four years.

The new office and laboratory addition will be two stories high, of brick and steel construction with a thirty-foot front and will follow closely the general lines of the present structure. Water from a six hundred foot well will be used for a complete year-around conditioning and humidity control system. Ceilings consist of cork and spun rock wool; private offices will be finished with walnut and mahogany paneling. The plant addition is intended as additional space for the manufacture of rubber rollers, gums and fabricated articles.

According to President W. A. Lippincott, the new laboratory will provide enlarged facilities and will be equipped for extensive research along both chemical and mechanical lines. The laboratories as well as the new drafting and engineering offices will be fully air conditioned. An innovation in connection with the air conditioning system is the provision of a supply of dehumidified air for the rooms in which gelatin rollers and composition are seasoned.

New Company Formed

The formation of a new company for the manufacture, sale and service of Midget and other static eliminating systems has been announced. This company will be known as The Simco Corporation. The corporation has retained on its technical staff the men who assisted in the development of its products. The new company will confine its activities entirely to the art of static elimination.

Color

Printing in Daily Newspapers Must Be Simple and Attractive

By HAROLD M. TILLINGHAST*

DAILY newspaper color work is or should be, a specialized art in itself. The reasons for this are almost self apparent, although they are frequently overlooked. In Sunday supplement multi-color work fine register and precision are paramount, while in daily color work *time* is the most important factor, both in the preparation of the copy, the printing plates and the finished product. On the daily paper, the color must be run on the same presses that do the black printing, or on attachments thereto, and their speed and productivity must not be reduced materially. There is practically no time for make-ready or even for careful registration of plates, and therefore a different technique is essential on the part of the advertiser and copy writer. I cannot emphasize too strongly the fact that a clear understanding of this is necessary by all concerned if newspaper daily color is to obtain its rightful place in the sun.

The future of color in daily newspapers, rests with the rank-and-file of the newspapers, but many publishers appear to be fearful of it. They believe it to be a complicated box of tricks, the expense of which is apt to more than offset the revenue received. With proper cooperation on the part of the advertiser, the advertising agency, the copy writer and the newspapers' own advertising and mechanical departments, daily color can be kept so simple and yet made so attractive that it will, of necessity, be revenue producing.

Simple and Attractive Color

Please note that I said "simple *and* attractive". Just as many potential advertisers in dailies have been driven away by the idea of some newspaper advertising departments that all that was necessary was to phone down to the pressroom "Jim, put some color on that so-and-so ad", as by the belief held by many publishers that unless they can offer complicated, expensive and troublesome three or four-color process work they cannot hope to make money in this field.

Color Printing Methods

In the more simple type of color printing, such as colored headlines or a patch of color here and there, color has often been secured by running the web from one unit to the other, but while this has enabled the production of very creditable work in a number of instances, it has the disadvantage of reducing the page capacity of the press and necessitates either the use of auxiliary ink applying devices, or the cleaning out of existing ink supply devices so that colored ink may be accommodated.

The auxiliary ink pump or ink fountain has met the requirements in this connection to a limited extent, but as a pair of printing cylinders is required anyway for each additional printing, the auxiliary ink supply device does not overcome the reduction in page capacity necessitated when the web is passed from one unit to the other to secure the additional printing. Some excellent work, however, has been done with this type of equipment.

The more conventional type of equipment is perhaps the addition of a color cylinder or a printing couple which enables the securing of one extra printing without any loss in page capacity on the press.

The pages on which the color printing can be produced are determined by the location on the press of the color printing attachment, and it is simply a matter of adding these color attachments to the proper units in order to obtain color on advertisements on inside or outside pages. When additional printings are desired, the web may be passed first through a unit adjacent to the one carrying the color cylinder, thus enabling securing two printings on one side of the web and three on the other, or one printing on one side and four on the other by reversing one pair of cylinders on the unit carrying the color attachment. Presses in the field with color attachments of this kind are too numerous to mention.

There is a third type of attachment consisting of two plate cylinders running against a common impression cylinder which can be super-imposed over the printing units in such a manner that the web from any desired adjacent unit may be passed through it to secure two additional printings on either the first or second impression, and I think this is perhaps the type of color printing attachment which will best meet the publishers' daily color requirements in the near future. While such facilities have been provided on presses as far back as ten years ago, they have not come into general use as yet, perhaps because of the fact that the cost of manufacture is almost equal to the cost of an additional printing unit. At the present time the Hoe Company has under manufacture a number of mechanisms of this kind, both here and in London, and I understand the new Goss presses being installed in the Chicago *Tribune* plant will be equipped with similar mechanisms, and the other press manufacturers in this country are, I believe, in a position to furnish similar equipment. The page placing flexibility thus afforded, and the fact that it enables securing two additional printings without reducing the page capacity of the press, makes it a device worthy of serious consideration by publishers entering the daily color field. Since in newspaper printing the desires of the advertiser are practically paramount in the page placing of advertisements, the versatility of placement thus afforded is of prime importance.

Process Work Equipment

For high quality process work it is, of course, possible to add separate multi-cylinder color printing attachments such as the five-cylinder attachments installed in the plant of the Minneapolis *Tribune* which not only do not decrease the page capacity but permit adding an additional web to the full speed product of the black press with unique page-placing flexibility of the color pages. Some very beautiful process work has been done with these attachments, as well as many excellent examples of the simpler but often equally striking and attention-arresting single extra color advertising.

Copy Preparation Technique

Mr. Tillinghast asserted that color printing in daily newspapers can be both *simple* and *attractive* provided the proper technique in copy preparation is followed. In support of this opinion he quoted briefly from the comments made at various times by B. Winfield Challenger, Walter Ogden, Albert L. Lengal and H. L. Foster to show that the preparation of color copy for the daily newspaper is, or at least should be, a special

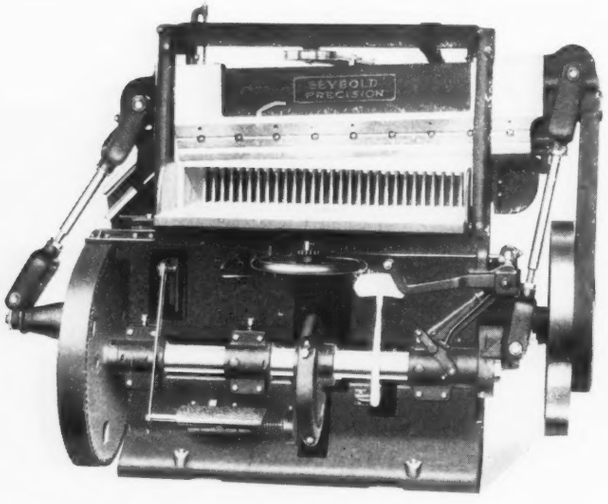
Continued on Page 48

*R. Hoe & Co., Inc., New York, N. Y. Abstract of paper delivered at the first annual conference of the Graphic Arts Research Bureau of the American Society of Mechanical Engineers at Cincinnati, Ohio, June 20-21, 1935.

Perfected Equipment For Printer

Seybold Precision Cutter

The Seybold Machine Company, Division of the Harris-Seybold-Potter Company, is placing on the market an automatic cutting machine for use by those engaged in the paper, printing or book-binding business. The automatic cutting unit, pictured in the illustration, it is said, is an easily handled, safe machine with base or frame cast in one piece, and with bearings and operating



parts firmly bolted to the solid-cast base to form a self-contained unit and perfect alignment is always possible due to the method of construction.

All machine work is to standard gauges and templates, so parts are quickly assembled and easily interchanged. The automatic clamp holds any height or width of pile rigidly before, during and after the cut is made. Automatic pressure adjustment provides for increasing or diminishing exactly to cover all requirements for cutting the toughest or sheerest stock, and the pressure indicator moves with the slightest adjustment to vary the pressure. By the operation of this device, high, low or medium pressure may be applied to suit conditions.

One of the special features in connection with the pressure device is seen in its application quite independent of the knife action, which permits the pile to be fixed securely before the knife reaches the cutting point.

A treadle is provided which controls the movement of the clamp, enabling the operator to see exactly where the knife cut will be made and also to assist him in jogging unstable piles before making the cut.

The knife on this Seybold machine has a double shear action, the knife entering the pile at the left side first, passing down through the pile with a side as well as a dip-shear movement. Complete safety devices and methods of operation, it is said, are featured on this special unit which is equipped with two knives and the usual accessories.

Chain Drive Lore

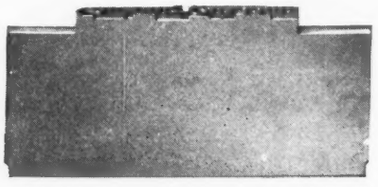
The Morse Chain Company has just published an ingenious device which is called "Silent Chain Drive Selector." The Selector consists of a double-faced chart in both faces of which are cut windows or slots. A slide containing chain data and specifications may be drawn up or down to find the data suggested in legends above and below the windows.

The chart makes simple the proper selection of a chain drive within the range of ½ h.p. to 150 h.p., which range represents about 95% of actual installations. It selects the number of teeth in the sprockets, pitch and width of chain, gives the standard center distance, figures chain length, gives diameters of sprockets and indicates the sizes carried in stock by the Morse Chain Company.

The publishers state any man, whether he be an engineer or not, can use the Selector because of its simplicity.

Low-Slug Quadding

Low-Slug quadding may be obtained now on new Intertype composing machines in conjunction with the Autospacer, it has been announced by A. T. Mann, Jr., vice president in charge of sales of the Intertype Corporation. The salient feature of the new device is that the usual quadded spaces on slugs are cast at lower depths than the quadded portion of the conventional slug and of a height which will correspond to the material commonly employed for hand spacing and quadding. The low quadded areas, it is claimed, are obtained without the use of special matrices or spacebands. The new low-slug mechanism functions in addition to and in connection with the usual operations of the Autospacer.

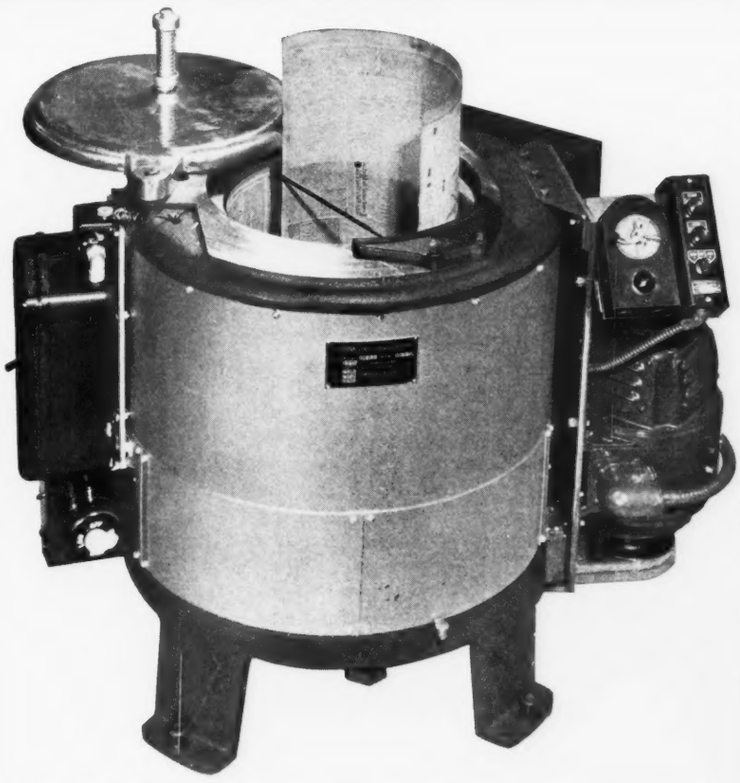


View of Intertype slug cast with low quadded areas at either side of the letter characters. The quadded areas on slugs are of suitable height and may be used for mounting photoengravings. The indention at either side of the letter characters on this slug were obtained automatically without the operator dropping quad mats to obtain the indention.

The depth of the quadding can be changed for various types of work. For example, it is possible to use slugs as a base for photoengravings by quadding the base portion of the slugs at a depth that will bring them up to type-high. Zinc or copper plates may be placed in position directly upon the slugs. Sawing of slugs, it is said, and the operation of fitting and inserting base material is eliminated.

Another new use for the Autospacer is that automatic justified indention at either or both ends of the line may be obtained. Such indentions can be the same at both ends, or greater at one end than at the other, or the slug can be cast flush at one end and indented at the other, either right or left. Irrespective of the indention used, the lines are justified automatically and the operator proceeds as though he were setting straight composition.

New printed matter describing low-slug quadding has been prepared by the manufacturers and is available from any Intertype office.



View of new Centrifugal Form-O-Scorch Machine announced by American Publishers Supply. Newspaper mats are formed and scorched under a centrifugal pressure, which it is claimed, is approximately 4½ lbs. per sq. in. in a temperature usually set at 400 deg. F.

Centrifugal Form-O-Scorch Machine

A new centrifugal Form-O-Scorch machine for the joint forming and scorching of dry mats has been designed by the American Publishers Supply of West Lynn, Mass., for installation in the Boston *Herald-Traveler*. This is the second of its kind to be put into use in this plant. New features have been added to the new machine.

In operation, a mat is placed in the forming tube, backed and ready to cast. A dial on the Scorchrite Timer is set to any time duration desired to scorch the mat. The control switch is then thrown over and the tube starts spinning. At the end of the time period the tube automatically stops and the mat is ready to cast. A single mat is delivered every fifteen seconds or a double mat every thirty seconds.

The machine is equipped with a 3 h. p. G. E. self-braking motor which spins the aluminum forming tube at 1800 r.p.m. At this speed, centrifugal pressure of approxmatley 4¼ lbs. per sq. in. is developed to exert uniform pressure over the entire surface of the mat. While the tube is spinning, a fan at the bottom of the tube circulates heated air upwardly through the outer wall, over the heating units and down through the tube.

The scorcher is equipped with twenty-two specially designed 6 in. high temperature sheath heating units which are usually set to provide 400 deg. F. temperature. An indicator on the control box shows the amount of heat being produced in the tube and can also be set to regulate the temperature desired.

The tube control can be adjusted to operate automatically in conjunction with the time switch or can be operated by hand with direct "Off" and "On" control.

The difficulty experienced with paper dust and backing felt collecting in the machine has been eliminated by a dust clean-out ring at the bottom of the outside drum. A ring around the machine may be opened like a door to expose the heating units and the tube on its drive shaft. By leaving the ring in open position and starting the tube spinning, an air wave is created by the fan at the base of the tube and all dust and paper are blown out. When the door is opened at the base of the tube the heating units may be tested, rewired or replaced.

New Model Proving Machine

It is announced by Vandercook & Sons, Inc., that the No. 4 Vandercook Proof Press, with power ink distribution, has been perfected recently. The press takes a sheet 15 in. by 20 in.

This press is constructed with extra heavy bed for printing reproduction proofs, lithographic transfers, or

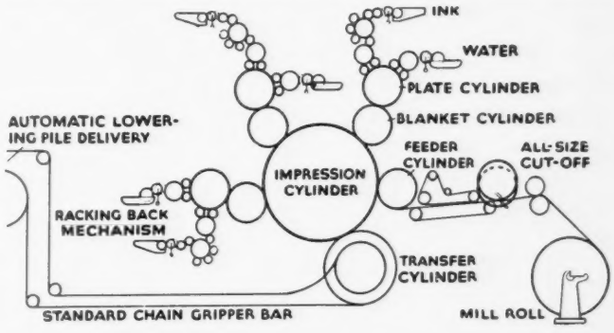
View of new 15 in. by 20 in. Vandercook Proof Press, which is equipped with Power Ink Distribution.

where forms and plates are carefully tested before lock-up.

Many unusual features have been incorporated in this new proof press. Complete information may be obtained direct from the manufacturer, or by writing in care of *Printing* EQUIPMENT *Engineer.*

New Type Offset Press

The U.P.M.-Kidder Press Company has recently built for a customer an offset press that prints three colors from one impression cylinder. This press is roll-fed with an all-size sheet cut-off, handling sheets up to 36 in. by 48 in. and allowing for cut-offs at ¼ in. intervals



down to a minimum of 20 in. The sheets go through the printing unit just the same as in all Kidder All-Size Adjustable Presses, except that it is, in this case, offset printing. Standard chain gripper bars deliver the sheets to an automatic lowering pile. Fountains, ink rollers, plate and blanket cylinders are all readily accessible for adjustment, change, makeready, etc.

Newspaper Color

Continued from Page 45

art, but not a difficult or expensive one, and that this copy must be prepared with an understanding of newspaper press limitations, where time is of the essence, and speed and production of paramount importance. In other words, in order for color in dailies to be generally successful, a new technique must be worked out by the copy writers and artists and this should not be handled on the basis of simply imitating the multi-color work done in magazine advertising, but should keep the subject matter as simple as possible. It should also capitalize to the best advantage some reasonably standardized newspaper color printing facilities, and be based on using to the greatest advantage the mechanical limitations of such facilities with respect to paper, plates, ink, printing speeds, etc. For instance, in the majority of cases one or two colors can be so used by the copy writer and artist that it is unnecessary to have close register, and while the effect is practically as good as if it were applied so that register *is* necessary, much work and trouble for the plate-making department and pressroom is obviated.

Time Limitations

As mentioned previously, time is of the essence in the production of a daily newspaper, and the time element in the engraving room and in the preparation of the plates is of the utmost importance. Here also copy simplicity will help, and it should be prepared with a thought to the necessary additional amount of time required in the Mechanical Departments.

Ink Standardization

The problem of ink standardization is a very important factor in the production of a uniform class of work and the reduction of cost, and if uniform results are to be obtained, it is imperative that colors and shades of inks be standardized.

Opposition to Color in Dailies

There are indications that some publishers in the United States are averse to seeing color printing introduced in dailies, as they visualize increased capital outlay and also expect to be faced with greater operative expense with no commensurate return in net income. I believe that if they could be assured a reasonable volume of color advertising, they would not hesitate to make the investment in the comparatively inexpensive additional color printing facilities required to do the simple but effective type of work referred to. The extent to which daily color is coming into actual use is evidenced by the great number of inquiries being received by press manufacturers for color equipment, and by the more than four hundred daily papers now offering color facilities to their advertisers. I believe that the interest will expand as more advertisers learn how to use simple colors effectively and in keeping with daily newspaper production requirements.

The Copy Problem

Because of the varying conditions, advertisers are faced with many problems in attempting to supply the proper kind of copy and plates, and the lack of uniform facilities to produce equivalent printing in various centers has also materially limited the use of color in national advertising. If and when publishers in general provide the simple and relatively inexpensive facilities to produce relatively standardized daily color work, there is no question in my mind but that national advertisers will be ready to buy this type of advertising space in increasing quantity.

Many people familiar with the problem contend that color advertising in daily newspapers will never be a success because of its direct and indirect costs, and the argument is also used that it is only of advantage to the first few users because it makes their advertisements more prominent than those of their competitors who do not use color, and that if it became more common it would lose this advantage and the added cost would then cause advertisers to discontinue its use. As to the first argument, I believe sufficient evidence has been produced to indicate that if advertisers and their agencies will work out a new technique of color advertising for dailies, the cost to the publisher of the necessary equipment to handle this successfully will *not* be prohibitive, nor will it interfere materially with the production of the daily paper. In regard to th second argument, I can only say that it was used just as forcibly by those opposed to the use of color in magazines in the early days of that art. An analysis of the other objections indicates that most if not all of them result from the belief that it is necessary for the daily newspaper which is taking up daily color to go into three or four-color process work. I do not believe this is at all essential or even advisable for the great majority of daily newspapers, and I am convinced that process work should be avoided by them, particularly when entering the daily color field and that instead they should keep (at least during this development stage) to the more simple types of color work, which, when properly done, will still be highly saleable. I again want to make clear at this point, however, that in saying this I do not intend to reflect in any way on the splendid three and four color process work done by papers which have the mechanical equipment and personnel especially suited to this type of work. To these newspapers and their forward-looking publishers and mechanical executives great credit should be given for their important pioneering work.

Color Here to Stay

Personally, I believe color in daily newspapers has come to stay, and if advertisers, their agencies and the publishers will cooperate in developing copy which is simple but at the same time striking, clean cut and artistic and which does not require more than 1 or 2 additional printings and does not call for accurate register, they will go a long way toward placing color printing in dailies on a sound and profitable basis.

Berckmans Joins Levey

Bruce Berckmans, until recently manager of the Ink Division of J. M. Huber, Inc., took up his new duties as vice president and director of Frederick H. Levey Co., New York and Philadelphia, on November 1.

F. E. Moskovics recently resigned the vice presidency of the Levy organization.

Mrs. Berckmans during his association with Huber, was active in promoting standardization of color and is the author of articles which have appeared in the trade press.

Larson with Herrick

Oscar G. Larson, formerly Superintendent of the Ink Department of the Schweinler Press, has joined the Wm. C. Herrick Ink Co., Inc., as plant superintendent at East Rutherford, N. J. Messrs. Herrick and Larson were associated together about 30 years ago when they started to learn the ink business with the L. G. Schroder Ink Co.

Must Be Delivered

10-16-35
(Day)

2 P. M.
(Hour)

CRAFTSMAN PRESS, Inc.

To.....
(Name of Engraver)

Please do the following work for us and bill us, IN DUPLICATE, under the Purchase Order number shown in the square at the right. Work must be delivered within the time specified.

DESCRIPTION of SUBJECT: *Oak Wardrobe Cabinet*

2166
(Our Order No.)

10-14-35
(Dated)

KIND of COPY: **Photographs**—Straight, Retouched (x). **Drawings**—Wash, pencil, crayon, pen and ink, oil painting. **Prints**—Halftone, line, litho., rotogravure, steel engraving. **Objects Themselves**—

SIZE: Same ( ) **Size** 7 Picas, Left to Right, By 17 Picas, Top to Bottom.
Between Stop Marks (x) Size for Entire Subject ( )

KIND of PLATES:
Line Etching on Zinc ( )
Halftone on Zinc ( )
Zinc Combination ( )
Zinc Embossing Die ( )

Metal Gauge 16 (x), 14, 11

Jem Etching ( )
Brass Embossing Die ( )

Line on Copper ( )
Halftone on Copper (x)
Copper Combination ( )
Flat Tone H.T. ( )
One Way Screen ( )
High Light H.T. ( )
H.T. & Zinc Tackon ( )

Photo Print ( )
Silver Print ( )
(Rush Delivery)

KIND of Plates:
Black and White (x)
Over Flat Color (x)
Zinc Color Plates:
No. of Colors ( )

Process Plates:
Duotype ( )
2-color H.T. ( )
3-color H.T. ( )
4-color H.T. ( )

Colors:
Key
2nd
3rd
4th

Electrotypes of the Originals ( )
Nickeltypes ( )
Red plate only ( )
Chromium Plated ( )
Amalgograph ( )

SCREENS:
60-65-85-100-110-120-133-150 (x)

BENDAYS:
No.
No.
No.
No.

MEZZOGRAPHS:
Screen 3-4-5-6

SPECIAL HANDLING:
Re-etch ( )
Etch extra deep ( )
Hard Tool ( )
Contrasty ( )
Reversed Position ( )
Positive Negative ( )
Insert Negative ( )

FINISH:
Like Copy ( )
Square ( )
Circle ( )
Oval ( )
Add for Bleed ( )
Outline ( )
Full Vignette ( )
Hard Vignette ( )
Head and Shoulders Outline, Bust Square ( )
Head and Shoulders Outline, Bust Oval ( )

PROOFS:
Plate Paper (x)
News Print ( )
Stock Supplied ( )
No. Extra Proofs (5)
Progressives ( )
Transparent Proofs ( )
Specify Inks Used ( )
With Inks Supplied ( )

FINISH:
With Line ( )
No Line ( )
White Border Line ( )
With Edges Nicked ( )
Background Blockout ( )

Outside Notch ( )
Inside Mortise ( )

Mounted—Wood (x)
Patent Base ( )
Solid Metal ( )
Anchor ( )
Saw Apart ( )
Unmounted ( )
Leave Bearers ( )

Trim:
Flush Sides (x)
Flush Bottom ( )
Flush Top ( )
Flush All Round ( )

Fig. 2

See Reverse Side

Order Form

Makes Specifications for Printing Plates Semi-Automatic

CAN a printing-plant superintendent be found who has not at some time or other fumed and raved because presses with high hour costs were standing idle while forms, otherwise up to schedule, reposed upon the imposing stones awaiting the arrival of a "remake" plate? The press delays thus caused may prove to be anything from a few hours to a few days, with the ensuing monetary loss even greater than that of direct ratio to the time lost if a disappointed customer chooses to take his account elsewhere.

Nor can responsibility for the interrupted schedule be attributed to any dereliction upon the part of the mechanical departments. Frequently the fault lies in the fact that someone in the front office has erred in his instructions to the engraver. Therefore, the injustice done the mechanical staff appears all the greater. A check-up will disclose "verbal instructions" given to the engraver's salesman as the main cause of such errors.

It is a rule in practically all offices that everything shall be requisitioned and ordered in writing, but for some reason or other the ordering of engravings seems to be an exception to the rule. The advertising manager, who would not think of ordering a box of index cards or a pencil sharpener without having the stock number and other specifications appear upon the requisition therefor, will call in an engraver's salesman, throw the copy across the desk, and, while signing letters and answering phone calls, dictate a few unstudied instructions; such as, "make a two-color zinc of this, 4 by 9, for a cover job. The heavy vertical borders will run as tints; the type and lighter borders, in a second color."

ATTACH TO BACK OF COPY

Date _____ Cut No. _____

Annual _____

Date Wanted _____

Half Tone _____ Line Screen _____

Finish _____

With or Without Border Line _____

Zinc Etching _____

SIZE _____ HIGH _____ WIDE

INSTRUCTIONS

_____

_____

_____

_____

Fig. 1

Then, recalling that he is due at a luncheon meeting, the salesman is dismissed with a final, "Go ahead. You know how to fix it."

What are the results of such unbusinesslike methods? In this instance, which is recalled from an actual experience, the cuts were returned made of the standard service zinc mounted on wood, instead of 11-point zinc, or being backed up with metal to make them suited for patent base and heavy duty. When the impression was made heavy enough to make the ink take on the rough cover stock, the wood bases compressed, necessitating stops for the addition of more and more squeeze. Before the long run was over, the metal loosened up and came off the base.

Silver was chosen for the second color. The tint blocks, printed in light green, might have been made to run beneath the silver, thus saving a third of the number of impressions actually required for the job, because sizing had to be run beneath the silver to insure coverage. This required an additional press run. Also, the 4 in. by 9 in. did not allow for the "bleed" necessary for head, front, and tail; therefore the bindery man was compelled to take small lifts and to trim most carefully. Twice the amount of trimming time called for in the estimate was required in order to save the job.

Few modern manufacturers permit employees to trust to their memories to determine specifications for their product. Wherever it has been found possible to do so, printed specifications and jigs and dies are employed to conserve time, to avoid costly mistakes, and to insure uniformity of product.

In the best interests of employer-customer relations, in fairness to the engraver, and as a matter of self protection, the mechanical staff should recommend that a jig-sheet be used by those charged with the responsibility of ordering engravings.

Accompanying this article are two engraving order blank suggestions. Fig. 1 is a simple form, printed upon gummed paper so that it may readily be attached to photographs or other copy. Devised primarily for customers whose requirements were standardized upon

DELIVERY: (a) Send.....(Silver Prints).....(Photo Prints) as soon as possible to.....

(b) Deliver.....set(s) of plates and.....set(s) of proofs to .....

(c) Deliver.....plates, copy, and proofs to undersigned.

Per.....
(Individual Ordering)

CRAFTSMAN PRESS, Inc.

Fig. 3

simple cut forms, it serves its purpose admirably. Blocks of these are supplied customers gratis by the engraving firm designing it.

Fig. 2 has been used very successfully in a mid-west printing plant for a number of years. It may be the opinion of some, when first they see this order blank, that it is very long and needlessly complex. It is complete, not complex. After a few hours use, one becomes familiar with the location of the various items and gains facility in its use.

Its completeness reduces the amount of handwriting required to a minimum. Likewise, it tends to reduce the number of omissions of details, which, in rushed moments, one might otherwise be led into, were it not for the fact that the form itself stands as a questionnaire, each line of which is asking that some decision be made.

A check mark after an item gives the engraver the information desired. To illustrate: If the reader will refer to those portions of Fig. 2 where *Italic* type and check marks occur, it immediately becomes apparent that a minimum of writing and checking has been made to impart the following rather complicated mass of information to the engraver:

1. That the order is dated 10-14-35.
2. That the number of the firm's purchase order is 2166.
3. That the plates must be delivered by 2:00 P.M., October 16.
4. That a retouched photograph is being supplied as copy.
5. That the size of the completed cuts must be 7 picas, measured left to right, and 17 picas, measured from top to bottom.
6. That only that part of the subject matter appearing between the white stop marks on the photograph is to be used as copy.
7. That a halftone on copper to overprint a flat tone zinc is wanted.
8. That a silver print must be delivered as soon as the photo-engraver has completed his camera work. This will be used for the purpose of completing the dummy.
9. That the halftone screen is to be 150 lines to the inch.
10. That the halftone is to be an outlined plate; *i.e.*, all background appearing in the original photograph is to be eliminated.
11. That the cuts are to be mounted on wood.
12. That the cuts are to be trimmed flush on the sides so that type matter may be run close to the plates.
13. That five extra proofs in addition to the number customarily delivered by the engraver are desired.

Clock the amount of time consumed to write this information in long hand, or to dictate it to a stenographer, and compare it with the time taken to merely check the various items mentioned, not to mention the factors of safety, and the answer is self apparent.

Note further that the size specifications are stated in picas (1/6th of an inch) and not in inches. Column and page widths and composing-room materials are computed upon the pica basis; therefore engravings should be made to picas. This feature alone will save much composing-room time spent in trimming and undercutting or leading-out to fit the column widths.

Also, the terms "left to right," in place of the usual term, "width," and "top to bottom" for "height" serve to make the instructions more fool-proof. The terms "width" and "height" are sometimes misleading for the reason that art copy is produced in such a variety of shapes.

Section (a) under the heading "delivery" provides for a special delivery of a silver print as soon as the camera man has finished his work. A silver print enables the printer to paste up a dummy while the plates are being processed by the photo-engraver and this frequently means the saving of a day or two over waiting to take proofs of the completed plates. Section (b) was added primarily for the advertising agency that writes its own cut specifications, but wants them delivered direct to the printer who is to produce the job. This information avoids confusion and saves time.

A sheet of carbon paper beneath the original and a second sheet easily provides a file copy for the issuing office. These should be systematically filed. Should sincere differences of opinion arise between engraver and printer as to what was ordered and what was delivered, the file copies may be made to serve as Exhibit "A".

When complicated combination plates are being ordered, a fly-sheet of hard tissue paper should be strip pasted over the drawings and the color combinations indicated thereon by means of water colors or colored crayons. To the fly-sheet attach the order sheet, Fig. 2, to make assurance doubly sure.

The reverse side of the form, likewise, may be utilized to give some instructions for the art work desired from the photo-engraver's art department. A tabulated form with the titles enumerated appearing at the heads of the vertical columns will render material assistance: Number; Subject; Kind of Work; Size of Sketch; Number of Colors in the Job; Kind, Weight, and Color of Paper that will be used for the job; Size of the Type Pages; Size of the Paper Pages; and Cost not to Exceed. Under the heading, "Kind of Work," should appear the subheads: Pencil Thumb Nail or Miniature Sketches; Sketches; Drawings—Line, Wash, etc.; and Retouching.

Those experienced in the preparation of copy for the engraver studiously avoid the use of paper clips. Clips may scratch the finish of a photograph or become imbedded therein, leaving a mark which the engraver cannot eradicate. Writing instructions with a hard pencil upon the back of an unmounted photograph should be avoided. Frequently the punch shows through and disfigures the work.

A china marking pencil, obtainable at most art stores in various colors (white and purple preferred), is an excellent medium for marking out stop marks upon photographic work. With these one may write instructions upon the smooth surface of the picture without injury to the gloss finish and, when the marks have served their purpose, they may be wiped off with a stroke or two of the thumb.

The apparent unfairness of the oral method and the serious losses entailed through its continued use urges the immediate adoption of some more effective method. Printing-house executives, looking towards greater efficiency in production, will adopt an engraving order form, whether of the types here suggested or some other, better adapted, perhaps, to their specialized needs.

Printing Ink Research Bureau Coverage Scale

Stock Used	Black Ink	Blue Ink	Red Ink	Yellow Ink	Non-Scratch Tints
Coated	170,000	150,000	140,000	100,000	180,000
S. & S. C.	140,000	130,000	120,000	95,000	150,000
M. F.—News Dull Coated	120,000	110,000	105,000	85,000	130,000
Offset	110,000	95,000	90,000	80,000	120,000
Bond	100,000	98,000	92,000	82,000	120,000
Rough Cover	80,000	75,000	72,000	70,000	90,000
Glassine & Cellophane	200,000	195,000	190,000	170,000	250,000

Figures show approximate coverage in square inches per pound of ink.

Opaque Greens and Oranges, use same scale as for Yellow inks. For Transparent Browns, Oranges, Greens and Purples use same scale as for Blue ink.

Metallic inks subject to much variation. Use coated paper only and figure silver, 90,000 square inches per pound. Gold, 70,000 square inches per pound, under very good conditions.

This scale is printed by courtesy of Martin Driscoll & Co., manufacturers of printing inks, and was compiled by the Printing Ink Research Bureau.

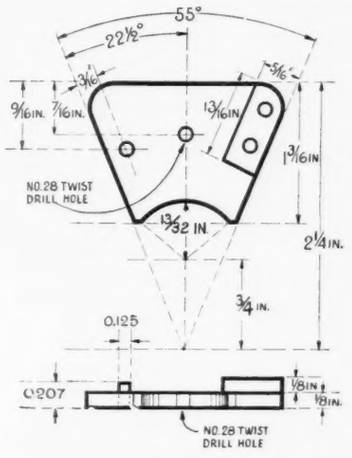
The figures, however, cannot be guaranteed because pressroom factors, such as condition of presses, age of rollers, nature of plates, makeready, stock, humidity, amount of ink carried, etc., affect coverage as much as 30% to 40%, or more either way from the average figures given in this scale.

When ordering inks, it is advisable to advise nature of the job, kind of paper to be used, type of press, progression of colors, whether colors overprint, and how soon it is planned to run succeeding colors or back-up.

Pin Improves Distributor Clutch Action

THE distributor clutch on many of the Model 8-14-25-26 variety of Linotypes was not supplied with a stop pin to prevent excessive overthrow of the pulley washer flange when the stop blocks in the clutch are disengaged at the time of a distributor stop. Application of a banking pin (J-800) in the pulley washer flange is well worth while since it prevents overthrowing and limits the throw of the disengagement action to avoid excessive strain on the clutch springs (I-1027).

For those machinists who may wish to apply the stop pin to a number of machines the drill jig illustrated in



Miniature diagrammatic working plan to show dimensions of gauge which is used to locate tap hole for overthrow stop pin on Linotype distributor clutch pulley washer flange.

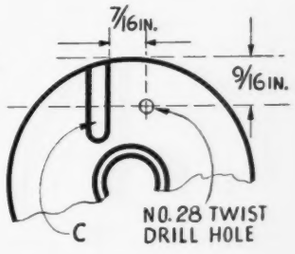


Diagram shows approximate location of hole for tapping 8-32 thread in distributor clutch pulley washer flange on a Linotype. The pin which is inserted in the hole prevents excessive overthrow of the flange when the distributor stops.

the diagram provides an easy way to locate the position of the hole for the banking pin which is to be drilled in the clutch pulley washer flange. Use of the gauge also insures the hole for each machine being drilled in the proper position.

The location of the banking pin hole (when looking at the stop block side of the clutch pulley washer flange) is 7/16 in. from the right side of the stop block recess (measured on a line at right angles to the recess) and approx. 9/16 in. from the outside edge of the pulley washer flange until it intersects the center of the $\frac{7}{16}$ in. dimension previously marked.

In order to use the gauge for drilling purposes, one each of the clutch stop blocks and spring hooks are removed from the pulley washer flange to permit laying the block *a* on the gauge in the pulley washer flange block recess. Just one banking pin is required and it may be drilled opposite either stop block. A No. 28 twist drill is used for drilling the hole which is afterwards tapped for 8-32 thread.

The gauge is made from ⅜ in. steel stock and is hardened. The pin *b* in the gauge merely supports the gauge to cause it to lie in true relationship to the clutch pulley washer flange and to insure that the drill will cut a hole at right angles to the surface of the flange.

Function

Of Register Rack on Flat-Bed Printing Presses

By Alton B. Carty

THE movement of the bed and cylinder of a flat-bed printing press is not constant and stable in the travel of the parts under the printing stroke, due to the reciprocal movement of the bed of the machine, and the lifting of the cylinder in the forward travel. In order to overcome the unequal travel of the bed and cylinder a register segment is attached to the end of the cylinder at the gripper line, and a corresponding rack is applied to the bed of the press.

These sections are usually cut with six or eight teeth, the outer half being cut with a progressively wider range than the ones contacting at the headline. The increased width begins with the outer teeth, and is gradually reduced for a distance of half the length of the rack and segment. This is done to compensate for any back-lash that might exist, and to provide for a perfect contact of the cylinder and form at the beginning of the printing stroke.

The usual method of setting the register rack, which is movable on the side of the bed, is to slightly loosen the bolts holding the rack in position, and after turning the cylinder over by hand, increasing the momentum until the full speed of the press is attained.

The bolts on the rack are then made tight and a perfect setting of the rack is supposed to have been attained.

But there are so many factors entering into the proper setting of the rack which may be overlooked, that the printing done will not be fully satisfactory.

One factor is loose cylinder bearings, another is an over-strong setting of the gripper rod spring which will throw the cylinder forward at the point where the grippers close upon the sheet to be printed; and still another is the plunger in the air chamber being improperly adjusted.

A press operated under these conditions will likely show a slur at the headline at the point where register rack and segment separate, or at the end of the form, with the printing units showing unexpected wear after several hours run. Also a "long print" of the form may occur.

These conditions result from the travel of the cylinder being partly actuated by contact with the bed bearers and form, instead of by the pull of the cylinder and intermediate gears.

It is essential that the driving gears of the cylinder should be under a pulling strain at all times. To accomplish this result there should be some form of brake holding back the cylinder and preventing backlash.

Some years ago one press builder sttached braking devices to the ends of the cylinder shafts on the outside of the frames of the press, the purpose being to prevent backlash. But these appliances only operated when the cylinder was being lowered from the beginning of the printing stroke. The brake should have been in constant operation.

With the cylinder working snugly in the bearings, and the plunger of the air chamber properly set, the most satisfactory way to set the register rack on the pressbed, is to remover the bed bearers, loosen the bolts holding the register rack, and turn the cylinder around until the teeth of the register segment on the cylinder and the register rack on the press bed are in full mesh.

Grip the cylinder at the opening below the rod tightening the tympan, or draw sheet, and pull the cylinder back until all backlash is overcome, and tighten the bolts of the register rack. The movement of the cylinder backward may not be more than $\frac{1}{16}$ in., but that space may cause imperfect printing and various forms of trouble.

The result of this method of setting the register rack will be that the cylinder will be driven fully by its own and the intermediate gears, instead of partly by bed bearers and form; and slurs, drag, bad register and unusual wearing of forms will be greatly reduced.

Register appliances are not used regularly on magazine presses, there being a dead pull in one direction at all times on the plate and impression cylinders. The register appliances may be used when the press is installed originally, but are removed when the machine is considered as being "worked-in." But there are high-speed rotary presses built with double gears to prevent backlash, in order to have all parts of the press start and stop together.

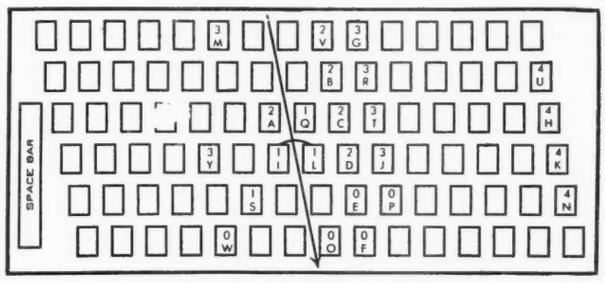
Newspaper presses use curved plates, and except for the margins are printed continuously. Usually, on the four-plate-wide machines the plates are set with margins staggered so that the printing is actually continuous around the cylinders, and margins are only passed half way across the cylinder at one time.

As a result of this condition it is not necessary or customary to put on register segments, as the cylinders have to be in continuous register.

To Develop Speed in Small-Cap Composition

Line-composing machine operators who are called upon to keyboard copy marked for small-caps, will find the accompanying fingering diagram helpful in obtaining speed upon this type of work.

The characters to the left of the heavy arrow are manipulated with the fingers of the left hand; those to the right of the arrow with the fingers of the right hand. To illustrate further: The letter "A" is struck with the second finger of the left hand; the letter "Q", with the first of the right. Zeros indicate thumbs. "I" and "L"



are the "home keys;" *i.e.*, the hands take a position immediately above these keys and the fingers are made to reach over the remaining small-cap keyboard with as little hand movement as possible.

As a further aid to facility in this type of composition a short preliminary practice is suggested, employing the following words for copy: AID, ALE, LAID, QUAIL, BROWN, DIPPED, QUART, BRIGHT, MAIL, WISDOM, BOXER, ZINC.

LINOTYPE SELF-QUADDER

Automatically quads right, centers, or quads left by the touch of a finger on this convenient lever.

Let some users tell the rest of the story:

• "I can heartily endorse the quadding and centering device on machines delivered to us in August, a year ago. On display machines, this device has speeded production. Operators are crazy about it."

• "After operating a Model 14 with the automatic quadding attachment for over a year, we would be at a loss to go back to the old way of centering lines and blanking out end lines. In some instances, we have cut our time in half."

• "The variety and class of work that can be done on this machine seems to be almost unlimited. We are constantly working out new combinations for time saving that could not be handled on any other kind of typesetting machine. It has speeded up our ad setting beyond our greatest expectations. If you care to take the trouble to watch our paper for a few issues, you will find that almost every line of display advertising is set on our new Model 14.

"Before I had any experience with the centering and quadding device, I had some doubts as to its true value and the time saving that was claimed for it. After having used this equipment for three months, I would not dispose of it for twice what it cost me."

• "The quadding device is a great time saver, especially where ad work is concerned."

• "After two years' experience with the attachment, we just can't imagine a Linotype without it. The time saved, accuracy secured, and money-making possibilities have proved themselves time and time again."

• "On any kind of job consisting of short lines which have to be set flush either to the right or left or centered, there is a tremendous saving of time."

• "We are thoroughly satisfied with our Linotype Double Quadding and Centering device. It does everything that is claimed. We have had no trouble with it. It is a time saver on a lot of jobs."

TRADE LINOTYPE MARK

MERGENTHALER LINOTYPE COMPANY

BROOKLYN, NEW YORK

SAN FRANCISCO · CHICAGO · NEW ORLEANS · CANADIAN LINOTYPE, LIMITED, TORONTO, CANADA

Representatives in the Principal Cities of the World

LINOTYPE MEMPHIS FAMILY

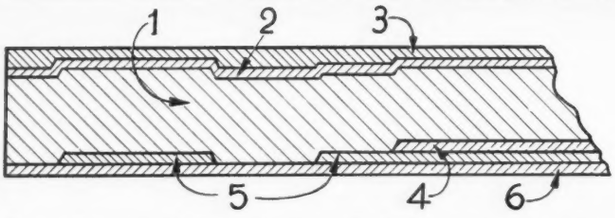


Fig. 2—Cross-sectional diagram (exaggerated) showing master matrix, matrix retaining filler, a printing plate and the underlay assemblage after the plate has been treated by the Ernewein process in order to provide a matrix from which can be cast stereotype plates having relieved printing surfaces of varying heights according to the "color" values in the picture.
In this diagram 1 is the relieved zinc or electrotype (zinc-high thin-shell) plate; 2 is the master matrix; 3 is the matrix relief retaining filler compound which provides a backing and preserves the relieved surfaces in the matrix; 4, 5 and 6 are the specially prepared underlays used for obtaining relieved surfaces in the matrix according to the "color" value in the picture to be reproduced.

Relief

Stereo Plates From Matrices Made by Ernewein Process

By STAFF WRITER

A NEW PROCESS for the making of stereotype matrices which have been perpared in such a way that stereotype plates with relieved, instead of the usual plane, printing surfaces may be cast from the matrices has been patented in the United States Patent Office by George H. Ernewein, well-known stereotyping executive of Buffalo, N. Y. An abstract of Mr. Ernewein's patent appeared in the September *Printing* EQUIPMENT *Engineer.*

The object of the process is to furnish an indefinite number of matrices from a perpared master plate, for magazine printing, syndicate or newspaper national advertising purposes. The matrices so furnished will cast stereotypes having relieved printing surfaces of varying heights (from 0.001 in. to 0.003 in.) according to the "color" value of the highlights, middletones and solids. The solids, of course, will have the greatest height, the middletones a lesser height and the highlights will be the lowest portion of the plate.

In Mr. Ernewein's process several proofs are taken on specially prepared paper of variable thicknesses from a zinc or zinc-high thin-shell electrotype plate. The proofs are manipulated in such a way as to form cut-outs or masks according to the "color" value of the various tones in the picture. After the underlay has been prepared by cementing together the desired number of cut-out proofs the entire underlay is placed in exact register on the bottom of the printing plate. The first underlay is made from a proof of the cut by removing all portions of the proof except the darkest shades or solids; the next proof has all the semi-highlights removed; if necessary, the third proof may have all the highlights removed. The process is carried out for as many different printing shades or depths of shades appearing in the subject matter. The resultant laminated underlay may either be built up progressively on the back of the cut or may be built up separately on one of the proof sheets and then cemented in perfect register on the back of the plate.

The plate with its underlay is then placed on a metal base together with a matrix blank and the whole is subjected to heat and pressure. The application of heat causes the metal body of the plate to yield in order to bring out the face portions into well-defined relief, and at the same time the matrix assumes a form corresponding to the newly-relieved printing surfaces in the plate. After the matrix and plate have been subjected to heat and pressure a sufficient length of time, the molding unit is removed and a compound is applied to the back of the matrix to preserve its shape. Any number of succeeding matrices may be moulded from the prepared plate.

It is claimed that finer halftone screens may be used when the Ernewein process is employed than would be possible in connection with the conventional stereotype reproductive methods.

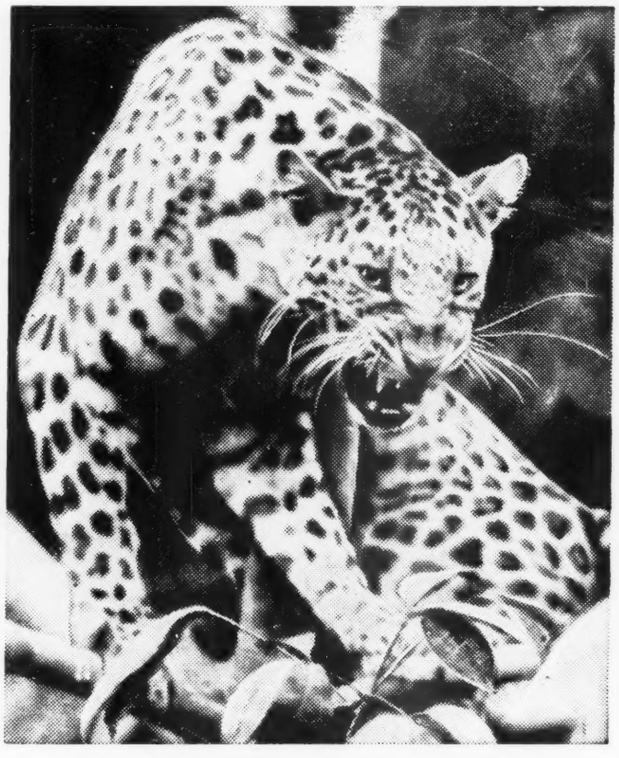
Broad Changes Position

M. G. Broad, for the past five years superintendent of the pressroom and stereotype department, Nassau Daily *Review* and Nassau Daily *Star*, Long Island (N. Y.) newspapers, resigned his position October 1 to accept a similar position with the *Times* Publishing Co., Bayonne, N. J.

New Indian Chief

Fred A. White, manager Chicago Agency, Mergenthaler Linotype Company, is now a member of the Colorado Pueblo tribe of Indians, with the title of Chief Opa Tsanwai (Chief Blue Sky). At the fall meeting of the Colorado Press Association at Iron Springs, Colo., Mr. White and C. W. Stoddard, of Craig, president of the association, were inducted into the tribe.

Fig. 1—Another pre-makeready element enters stereotype plate-making field. This picture was printed direct from a stereotype plate cast from a matrix prepared by the Ernewein process. In this process the matrix is made in such a way as to cast a plate having slightly variable printing heights. The printing surfaces vary in height according to the density of the tones in the picture. An indefinite number of matrices may be made from the prepared master plate for magazine printing, newspaper syndicate and advertising matrix purposes.



HYDROMAT . . .

the direct pressure moulding press

A FEW FACTS ABOUT HYDROMAT

New York—Hydromat here during last five years molded up to 600,000 mats without a day's interruption, the equivalent requirement of an average newspaper for 30 years.

Cleveland—Small halftones as small as one square inch molded here under the front edge of the platen with the gauge registering 300 tons pressure. Stereotyper's fear of smashing small delicate electros is gone. Positively no guessing about setting pressure.

Akron—Two men work here alternately from both sides full and quarter page molds with molding blankets attached to upper platen without bothering about resetting of pressure. Perfectly even molds at every stroke.

Chicago—"Hydromat Service" chosen here as name for new mat service of nation-wide concern. This stands as true proof of confidence in quality and dependability maintained by Hydromat.

New York—Hydromat here delivers at an average of 100 mats to 120 mats per hour, full page, cold molded mats under 600 to 700 tons pressure.

Cleveland—Hydromat here equipped with steam platen and water-cooled oil system turns out baked mats every three to seven minutes.

We invite anyone interested in direct pressure molding to see Hydromat at work in any of the principal cities from coast to coast.

The Electro-Hydraulic Machinery Company

Kent, Ohio

Fig. 1.—Comparative photographic reproductions to demonstrate show-through by means of two sheets of 40-pound paper. Each sheet was printed with similar characters and a photograph taken from the reverse side of each sheet. The sheet at the left was unpigmented and the one at the right contained 3.8% Titanium Dioxide.

Titanium

Pigments and Effects When Used in Printing Papers

By WILLIAM R. WILLETS*

OPACITY, color, and brightness are characteristics of predominant importance in printing papers. Until comparatively recent times, the only white fillers used in the paper industry possessed little opacifying power, but the development of titanium pigments has made possible the manufacture of more opaque, white and bright papers, having a minimum of "show-through", than has been possible heretofore.

There are three principal titanium pigments used in the paper industry: Titanium dioxide (*Titanox-A*), a composite of 25 percent titanium dioxide and 75 percent blanc fixe (*Titanox-B*), and a composite of 30 percent titanium dioxide and 70 percent calcium sulphate (*Titanox-C*).

Unfortunately, space does not permit of a detailed discussion of these three pigments, nor yet of the many methods of application. However, titanium pigments find almost universal use. They are widely used as components of the beater furnish, since the presence of very small amounts greatly improves the opacity, whiteness and brightness of the sheet. Because of their fine particle size, they give a very excellent printing surface. They are also chemically inert and will not react with any constituents of printing ink, etc. Likewise, the same factors make them highly desirable for use in coated and "art" papers, and in the papers produced by the various methods recently developed for "semi-coating" and "surface application".

It might be well at this point to consider some of the factors entering into the opacity of paper. The opacity of an unfilled sheet of paper depends on the difference in refractive indices of air and cellulose, that is, between 1.00 and 1.53. If a filler having a refractive index similar to cellulose (*e. g.* clay with a refractive index of about 1.55) is added to the sheet, the opacity will not be increased very greatly. However, if titanium dioxide (refractive index 2.55) is used, the difference in refractive indices is much greater, and consequently the sheet will be far more opaque. Tests have shown that one percent of titanium dioxide in a sheet will make it as opaque as if about 15 percent of clay had been used, providing the basis weights are the same.

When a sheet is printed the opacity of the paper beneath the printing decreases because the difference between the refractive indices of the printing ink vehicle and the cellulose is less than the difference between those of air and cellulose. This causes the phenomenon of "show-through". Since titanium pigments, because of their high refractive indices, retain their opacity when in contact with the printing ink vehicle, "show-through" is minimized.

The opacity of paper is commonly measured by what is known as the "contrast ratio method"; the lower the contrast ratio, the less the opacity. The result of a titanium dioxide content of about 3.8 percent on the opacity of commercial papers is shown in the following table:

Basis Weight Lbs. 25x38-500	Opacity—Contrast Ratio Unpigmented Paper	Pigmented Paper
33	—	0.85
40	0.79	0.90
50	0.85	0.95

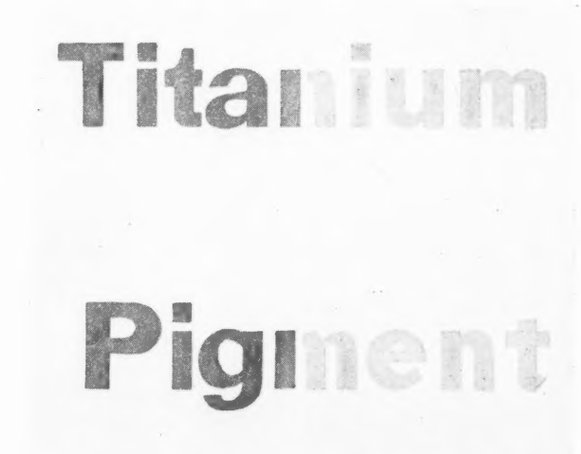


Fig. 2—Comparative showing of opacifying effect of Titanium Dioxide when used as a paper pigmenting agent. Each of the above sheet sections was placed side by side over heavy black printing. The sheet at the left is unpigmented while the sheet at the right contains 3.8% Titanium Dioxide.

*Paper Development Laboratory, Titanium Pigment Co., Inc., 105 York Street, Brooklyn, New York. Member, Technical Association of the Pulp and Paper Industry; Member American Chemical Society.

The KLUGE AUTOMATIC PRESS

BRANDTJEN & KLUGE, Inc., St. Paul, Minn., U.S.A.

Manufacturers of the

KLUGE AUTOMATIC PRESS—10 x 15, 12 x 18 . . . KLUGE-C&P CRAFTSMAN UNIT—12 x 18
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In all cases, with the exception of the titanium dioxide content of the pigmented paper, the furnish was identical.

It is easy to see from these data that it is a simple matter, by the use of titanium pigments, to make a lighter weight paper as opaque or even much more opaque, than a heavier paper.

An effort has been made to give a graphic representation of the effect of titanium dioxide on "show-through". The 40-pound sheets were printed with heavy characters (the height of capitals being about ¾ inch), and a photograph taken of the reverse side. This unretouched photograph (Fig. 1) shows that the effect of titanium dioxide in reducing "show-through" is as great as its effect in increasing opacity.

Also an attempt has been made to show the opacifying effect graphically in the unretouched photograph of Fig. 2, which was made by placing two of the unprinted 40-pound sheets over similar heavy black printing. It can be seen readily that the pigmented sheet, containing about 3.8 percent titanium dioxide (on the right) was far more opaque than the unpigmented sheet.

These two photographs demonstrate very clearly that small amounts of titanium pigments result in very definite improvements in the sheet as far as opacity and "show-through" are concerned. Unfortunately, they cannot do justice to the greatly enhanced whiteness and brightness, but these properties are likewise much improved.

The development of these highly desirable properties—opacity, reduction of "show-through", whiteness and brightness—together with the extreme fineness of the pigments, results in an excellent printing surface which permits of the optimum reproduction of text, line cuts, half-tones, etc.

The results obtained with titanium pigments have resulted in their use in all types of printing papers: Book, magazine, envelope, bible, catalog, offset, manifold, mimeograph, bond, etc. Because of the high opacity obtained it is often possible to decrease the weight of the paper used, resulting in savings in paper tonnage, postage, etc.

In passing, it might also be of interest to note that titanium pigments are finding wide use in white, pastel and cover inks. Here again the same properties that make them adaptable to the paper itself (opacity, covering power, whiteness, brightness and fineness) render them valuable to the ink maker.

Bibliography

For further details regarding the use of titanium pigments in paper, the reader is referred to the following bibliography:—

Anon
Titanium White in the Coated Paper Industry
Papier-Zeitung *97:* 3106 (1928)

Willets, W. R.
Use of Titanium Pigments in the Paper Industry
Paper Trade Journal *97*, No. 10: 28, 30 (Sept. 7, 1933)
World's Paper Trade Review *102*, No. 9: 642, 644, 684 (Aug. 31, 1934)

Willets, W. R.
The Opacifying of Paper by Means of Titanium Pigments (A Preliminary Report)
Paper Trade Journal *97*, No. 12: 35-37 (Sept. 21, 1933)
Technical Association Papers *17:* 423-426 (June 1934)

Ravner, Oystein
Titanium Pigments in the Paper Industry
Svensk Papers Tidn. *37* No. 2: 41-43 (Jan. 31, 1934)
Finnish Paper Timber J. *15*, No. 2: 68, 70-71 (Jan. 31, 1934)
Papir-Journalen *22* No. 1: 7-8, No. 2: 15-16 (Jan. 27, Feb. 15, 1934)
Moniteur de la Papeterie Francaise *22*, No. 5: 7, 8, 15, 16 (Mar. 1, 1934)
Moniteur de la Papeterie Belge *14:* 171, 173 (March 1934)

Jarmus, J. M. and Willets, W. R.
The Analysis of Paper Ash Containing Titanium Pigments
Paper Trade Journal *98*, No. 1: 41-43 (Jan. 4, 1934)

Willets, W. R.
The Beater Addition of Titanium Pigments
Paper Trade Journal *98*, No. 6: 37-39 (Feb. 8, 1934)
Technical Association Papers *17:* 120-123, 186-188 (June 1934)
Abridged in La Papeterie, June 10, 1934, pp. 589-590

Anon
White, More Opaque and Stronger Paper
Moniteur de la Papeterie Francaise *22*, No. 6: 138 (March 15, 1934)

Willets, W. R.
Application of Titanium Pigments
Paper Mill and Wood Pulp News *57*, No. 14: 15-16 (April 7, 1934)

Willets, W. R.
Titanium Pigments
Paper Industry *16*, No. 4: 256 (July 1934)

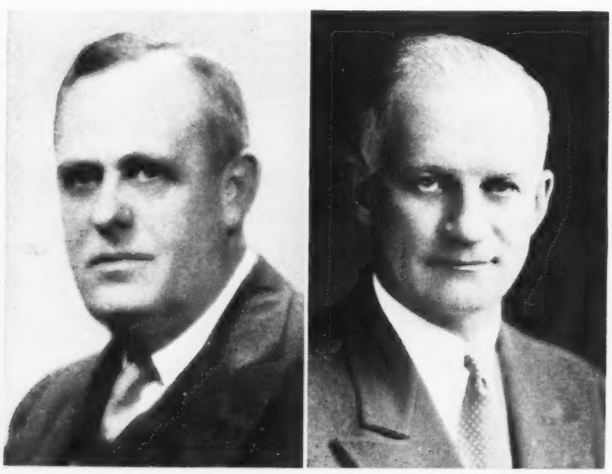
Deribere, Maurice
Use of Titanium Pigments in Paper
Le Papier *37*, No. 8: 741, 742, 745, 746 (Aug. 15, 1934)

Deribere, Maurice
Use of Titanium Pigments in the Coloring of Plastics and in the Delustering of Artificial Silk
Revue Generale des Matieres Plastiques *10*, No. 8: 311-314 (August 1934)

Kingsbury, F. L.
Titanium Pigments
The Chemical Bulletin *27*, No. 7: 171-174 (September 1934)
No. 8: 195-197 (October 1934)

New G. F.
Titanium Oxide Fillers
Paper Maker *88*, No. 4: TS 185 (October 1934)

Willets, W. R.
Surface Application of Titanium Pigments
Paper Trade J. *100* No. 1: 26-27 (Jan. 3, 1935)
Paper Mill *58* No. 14: 13, 15, 16 (April 6, 1935)
Tech. Assoc. Papers *18:* 49, 50, 341, 342 (1935)



J. W. Valiant *Wm. Guy Martin*

Executives Promoted in H-S P Organization

At the recent annual meeting of the Harris-Seybold-Potter Company at the company general offices in Cleveland, several promotions of company executives were made.

J. W. Valiant and Wm. Guy Martin, long associated with the company, are receiving congratulations upon their elevation to higher offices. Mr. Valiant, vice president and manager of the Eastern Sales District, with offices in New York, N. Y., was elected to the Board of Directors of the company, while Mr. Martin, manager of the Western Sales District, with offices in Chicago, was honored with a vice presidency.

Both men are well known in the Graphic Arts world, and, according to H. A. Porter, Vice President in Charge of Sales, deserve the preferment which has been accorded them. "The services of these two men," observed Mr. Porter, "have been of the highest type and it is solely on the basis of their exceptional ability and loyalty that they have been given advancement with our company."

ELIMINATES RANDOM VARIATION

A Bewildering Variety of Cut Heights is a thing of the past with **The New Premier Rotary Shaver. This Startling New Unit** was largely prompted, by the **Evident and Genuine Interest** in a better, faster and **More Accurate** shaving means for **Flat Stereotypes, Electrotypes and Wood Base.** Has many **Novel Features,** which greatly facilitate this class of shaving. To know **The Manifold Advantages** of this **Remarkable Shaver,** you must write us for details.

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For Newspaper Printing Should Have Firmness and Resilience

By J. C. DUNN*

THE firmness of a blanket is its ability to resist compression. Its resilience, however, is its capability of regaining its original thickness after being compressed. These two necessary qualities are so frequently confused, or overlooked entirely that a brief explanation may prove interesting and helpful. The absence of either or both qualities reflects directly on the quality of printing produced. Their importance cannot be over-emphasized.

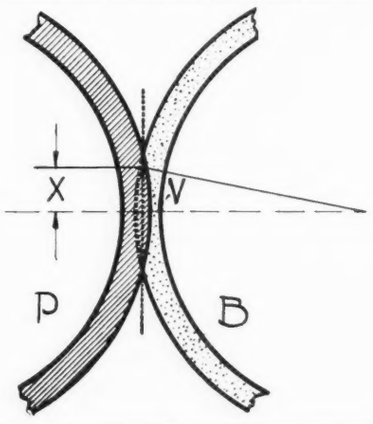
Transfer of ink from plate to paper requires a certain amount of pressure. As a result of long and practical experience it has become the usual practice to adjust this pressure, or "set impression," by measuring the distance between the bare plate and blanket cylinders, making due allowance for standard plate thickness and a predetermined (or sometimes assumed) total blanket thickness. When this operation is properly and accurately performed transfer of ink takes place exactly on the pitch circle and therefore with the least tendency to drag or slur, and the resistance of the blanket to compression supplies the necessary pressure. The diametrical measurements of both cylinders may be brought to a more common figure when blankets having properly incorporated firmness and resilience are used.

The accompanying diagrammatical sketch illustrates the deformation which takes place with the allowance for printing pressure between the cylinders. For the sake of convenience we may assume a press with a plate cylinder of 15-in. diameter. The impression cylinder enlargement will depend entirely on the body consistency of the packing as it relates to the two features we are discussing. In a case in which 0.008 in. is allowed for impression then 2*X* or width of contact, is approximately ½ in., or the equivalent of four lines of average text type.

The maximum will be developed at point *V* and its value will depend on the firmness of the particular blanket in use. The resilience of the blanket will determine whether or not it regains its original thickness immediately when the pressure is released. In other words, resilience determines the degree to which a blanket will resist the tendency to become thinner, which is due to the ironing effect of the pressure. It is this same resilience which prevents or eliminates bolstering. Admittedly, a blanket which recedes materially from its original thickness—or bolsters—cannot be said to be dependably firm or resilient.

Obviously, the amount of depression of a blanket under a given load is an inverse measure of its firmness. A degree of softness which requires frequent resetting of impression, due to recession from original thickness, does not contribute even in a small way to improved print standards. The degree to which a blanket recovers its original thickness, expressed in percent of maximum depression may be considered as an indication of its resilience. Resilience is the relation between work done by the load in compressing the blanket and work done by the blanket toward recovering its original thickness.

Much data has been obtained and plotted graphically to show the work done in compressing the blanket and the work done by the blanket in recovering. Technicians have devised instruments for making these determinations in the laboratory. While most results are relative, and perhaps comparable, the element of time employed in making these tests is all-important. In one case several minutes elapse during the determination and there probably is more tendency toward permanent deformation of the blanket. The other way is when the impact and rebound are almost instantaneous as must be the action of blankets actually in use on a printing press. The deformation referred to in the first method represents what sometimes happens when plates are left on an idle press for too long a time. A blanket which responds favorably to the second method of testing does not develop a noticeable bolster even after long hard use on high-speed presses.



The maximum pressure between two cylindrical surfaces is at the point of contact on a straight line drawn between the exact centers of the two cylinders, and its value will depend on the firmness of the blanket. It has been said that the impact load delivered by the plates against the blankets is approximately 3600 lbs. It is claimed also (by using an entirely different mathematical approach) that the impact on blankets 36 in. wide might be in excess of 7 T. across the entire width. The writer is not authority for either figure quoted. However, when it is realized that this impact, which we know is considerable, repeats as often as five to eight times per second some idea of the necessity of an enduring resilience is apparent. This tremendous pressure is increased greatly when a web break occurs and the paper winds around the cylinder several times before the press can be stopped.

Blankets possessing firmness and resilience to a degree which results in the enhanced appearance of the printed sheet have been known to be criticized, and in isolated cases rejected, for failing to compensate for all the irregularities in plate thickness. This act can be justified if the blanket is expected to print perfectly and at the same time overcome, or hide, other deficiencies for which the blanket cannot be held responsible. It seems proper to assume that better printing is the aim of every printer. Perhaps it would not be going too far to say that better printing must be obtained if newspapers are to continue as a popular and profitable medium for selling the advertisters' wares.

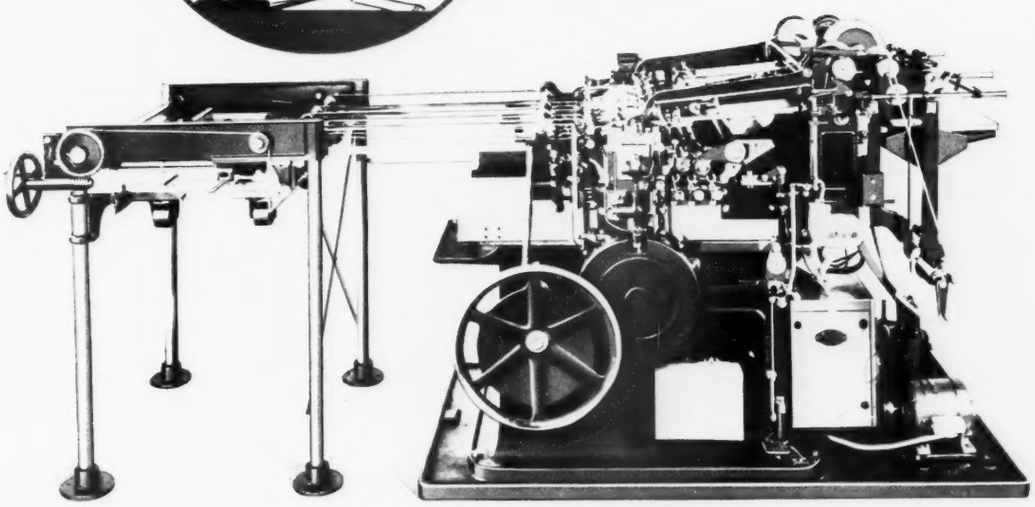
Advanced principles, as well as the time element involved in getting out the paper ushered in the dry mat, and even the casual observer and the less informed must admit that this type of matrix is a well established fixture. It is the opinion of some authorities that this

Continued on Page 117

*Vulcan Proofing Co., Brooklyn, N. Y.

TO THE HE-MAN

who drives a press HARD!



KELLY

Kelly Presses are now equipped with Kimble Motors
—motors designed especially for the
Graphic Arts Industry

If you want a press that can take a licking—and like it—a press that will make money on anything from onionskin paper to cardboard, buy a Kelly.

Don't take our word for it. Ask a Kelly owner. If you ask the owner of Kelly B, No. 2868, he'll say:

> "Kelly Press No. 2868, Style B, has been in continuous service in our printing department for a period of over eleven years. In this time there have been between twenty and twenty-five million impressions run on this press. It is the one 'old reliable' for it seems that when stock is too curly or too heavy for the other presses, we have never yet been stuck. The Kelly has always been able to handle it and finish the job."

If you're buying a press for profit, put your money in a Kelly. You'll get it back many times.

AMERICAN TYPE FOUNDERS SALES CORPORATION, ELIZABETH, NEW JERSEY

SET IN STYMIE BLACK AND STYMIE MEDIUM WITH FRANKLIN GOTHIC AND AGENCY GOTHIC

BOTH SIDES OF THIS INSERT PRINTED ON KELLY PRESSES

6 MORE IMPROVEMENTS

Printers will appreciate

ON THE *NEW* ATF COMPOSING ROOM SAW

$295. f.o.b. Elizabeth, N. J.

ELBOW ROOM ON THE WORK TABLE

Work and attachments will not be falling on the floor, nor will you need any auxiliary working surfaces. The generous work table . . . the largest in this class of saw . . . 20x28 inches . . . provides all the room you could need.

A TABLE THAT LOCKS WHERE YOU LEAVE IT

Calibrated to eliminate calculations and eyestrain. One revolution of the handle moves the table six points.

2 JUST ONE ADJUSTMENT

The three trimmer knives ground to equal length in the trimmer knife grinding tool are advanced or retarded in the hub all at one time by a single adjusting nut, eliminating the former triple adjustment.

EXTRA SPACE WHERE YOU NEED IT

is provided by the 20 inch *utility* box . . . a bin for accessories and tools . . . a tray for unfinished work.

3 NO GUESSWORK

on the trimmer knife grinding tool. The three knives are ground simultaneously and accurately to equal length. (Not shown on photograph.)

WHAT, NO CHIPS?

Of course the ATF Saw makes chips, but you never see them. The specially designed guard deflects *all* chips into the waste hopper. With the blade guard in place, there are *no* flying chips to annoy the operator and damage other machinery. Special guard is under table. (Not shown on this photograph.)

MUST A SAW BE UGLY?

We don't think so. We have built, within the limits of efficiency, a saw attractive enough to add to the appearance of your plant.

Every feature listed except special attachments is standard equipment on the ATF Composing Room Saw and is included, incredible though it seems, in the low standard price, **$295.00** f.o.b. Elizabeth, N. J.

• • •

TO SAVE YOUR TIME

The result of a studied effort to reduce maintenance time and expense, the ATF Saw has: reduced the number of points to be oiled to only three . . . eliminated the necessity of frequent oiling . . . a spindle equipped with ball bearings running in an oil bath to assure long life free from repairs . . . a motor which will require no attention except lubrication once in two years.

SPECIAL ATTACHMENTS

easily applied without screws, bolts or tools . . . the *new* plate line-up device . . . 160 pica gage . . . face-up miter device . . . beveling attachment . . . special blades, etc. . . . are available as extra equipment to meet special conditions. Ask for additional information and prices.

A DEMONSTRATION

Like all practical men, you'll appreciate these improvements in saw design most when you see them in operation; when you manipulate these time-saving, labor-cutting improvements with your own inquiring fingers. Your ATF Branch will be very glad to arrange for a working demonstration at your convenience. Ask an ATF man about it. You'll find more saw value than you ever thought could be produced at this low price.

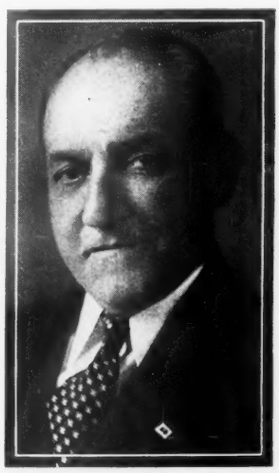
AMERICAN TYPE FOUNDERS SALES CORPORATION

Branches and Selling Agents in Twenty-five Principal Cities

Types used: Franklin Gothics and Stymie Family

Ortleb is Appointed Deputy Public Printer

Public Printer Giegengack announced recently the appointment of George Ortleb, St. Louis, Mo., as Deputy Public Printer. Mr. Ortleb was first appointed in the Government Printing Office on October 22, 1934 as Assistant Production Manager which position he held until being advanced to the position of Deputy. Owing to his wide experience in the printing industry, Mr. Ortleb will not only be charged with the administrative duties of the Office of Deputy Public Printer, but the Public Printer has assigned to him the duties of Assistant Production Manager.



Now it is Deputy Public Printer George Ortleb. Announcement of Mr. Ortleb's appointment was made recently by Public Printer Giegengack, G. P. O.

In addition to being a practical printer, versed in practically every branch of the printing industry, Mr. Ortleb is a chemist and has introduced a number of special ink formulas, as well as a system for the testing of inks of all kinds. He is the inventor of a number of devices useful in the printing trade.

Since entering the Government Service, and with the approval of the Public Printer, Mr. Ortleb has initiated a number of new methods and rearranged some of the printing sections so as to afford straight-line production so far as possible in an office that is urgently in need of more space.

One of the changes effected by the new Deputy Public Printer since his original appointment was the standardization of all metal used for the various composing machines. Another change was the adoption of the Point System instead of the Unit System for all type measures, and the elimination of brass leads and rules in order to effect a non-distribution policy as near as possible. An entirely new process for the making of printing press rollers has been adopted.

The Public Printer is earnestly giving attention to every detail of the Office with a view to improving its product and reducing costs, and in this work he will undoubtedly be ably assisted by the new Deputy.

G. E. on Upgrade

Orders received by the General Electric Company for the third quarter of 1935 amounted to $54,400,819, compared with $40,458,901 for the third quarter of 1934, an increase of 34 per cent, President Gerard Swope announced.

Orders received for the nine months amounted to $158,943,765, compared with $132,613,543 for the nine months last year, an increase of 20 per cent.

for BIGGER PROFITS

...*for* economical production of commercial and fine printing.

...*for* flimsy tissue to 8ply board.

...*for* quick changes and quick getaway, no pins, quads or gauges.

...*for* printing speed up to 4500 per hour.

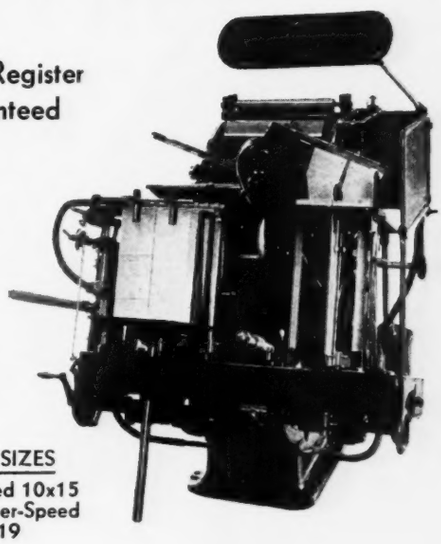
...*for* runs of 100 and up.

...*for* perforating, scoring, die-cutting and embossing.

...*for* 40 tons impressional strength, regulated while printing.

The SUPER-SPEED PRESS

100% Register guaranteed



SHEET SIZES
Super-Speed 10x15
Major Super-Speed 13x19

Modern times call for modern equipment. We guarantee you 20% to 200% HIGHER PRODUCTION on the SUPER-SPEED *than is possible on other full-automatic job presses.*

HEIDELBERG PRINTING MACHINERY CORPORATION
228 East 45th Street, New York, N. Y.

SPECIALIZATION

The Secret of Perfection

Doing one thing and doing it well makes a headliner . . . on the stage or in business. Driving and controlling Graphic Arts machines has been Kimble's exclusive specialty for more than a quarter century. No other motor builder has so wide and intense a knowledge of Graphic Arts drive requirements. That is why the leading builders of Graphic Arts machines recommend Kimble Motors . . . why you should specify them for your motor drives. Kimble Electric Company, 2011 W. Hastings St., Chicago, Ill.

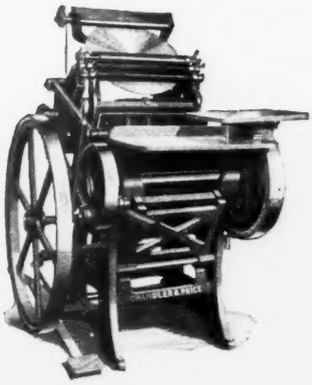
KIMBLE
Electrical Equipment for the Graphic Arts

Types used: Stymie Family and Romany

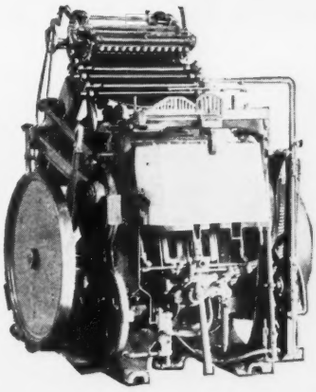
Kimble Motors are distributed in the Graphic Arts Industry by

AMERICAN TYPE FOUNDERS

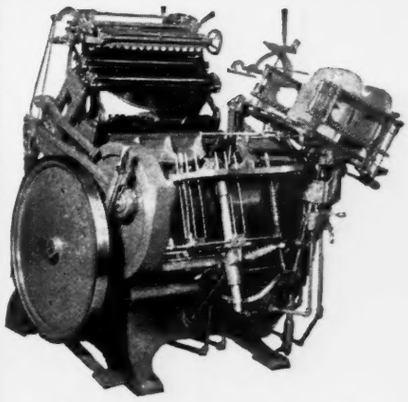
BRANCHES AND SELLING AGENTS IN TWENTY-FIVE CITIES



Chandler & Price New Series Presses for hand feeding are built in 4 sizes, 8 x 12, 10 x 15, 12 x 18 and 14½ x 22. Quickly made ready, easy to feed, and handle *profitably* a large share of the work in the average job plant. Low in first cost and in cost of operation and upkeep. Ask for detailed specifications and price on the size to fit the work you have to do.



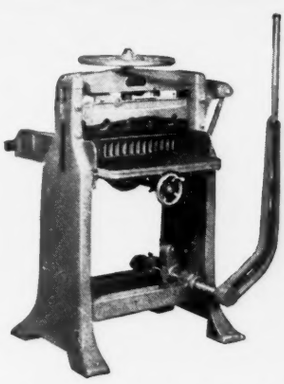
The New Craftsman Press with C & P Rice Automatic Feeder; 10 x 15 and 12 x 18. The high efficiency automatic job press, incorporating Handwheel Impression Control and many other features insuring better presswork and high hourly production, with less time lost in makeready and press adjustments. Write for illustrated bulletin and specifications.



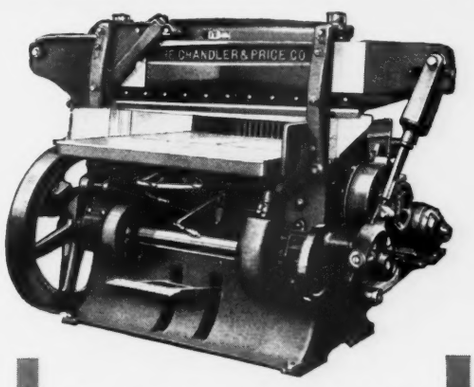
The 14½ x 22 Craftsman Automatic Unit. Regular and Heavy Duty. Capable of finest presswork on many jobs usually considered unsuited to automatic presses. The Heavy Duty Unit also provides automatic feeding on much die-cutting, scoring, creasing, stamping and embossing that would otherwise require costly hand feeding. Specifications on request.

Chandler & Price

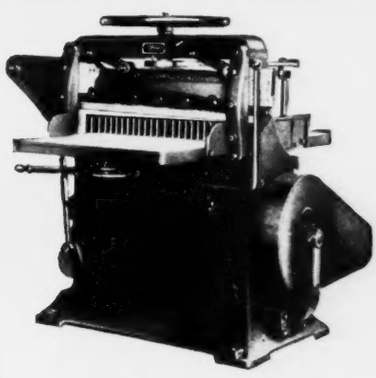
PRESSES AND PAPER CUTTERS



The Craftsman 26½ in. Lever Cutter, the efficient cutter for the smaller modern job plant. Nineteen new features, including solid one-piece side frames, truss-bridge knife bar, new type knife-bar linkage, etc., all providing more accurate cutting plus easier and faster operation. Complete description and specifications will be furnished on request.



Chandler & Price Automatic Paper Cutters, built in 39 in., 44 in. and 50 in. sizes. Knife *pulled*, not pushed through stock; binder friction adjustment accessible at side of cutter; back gauge lock that takes up its own wear; and many other exclusive features of interest to every experienced cutter owner and operator. Ask for illustrated bulletin and specifications.



The 34½ in. Craftsman Cutter. For the busy plant of moderate size, or to provide extra capacity at small investment for the larger plant. Many features similar to larger C & P full-automatic cutters—solid frame for permanent accuracy; knife *pulled*, not pushed through stock, back gauge clamp that takes up its own wear, etc. Write for complete description.

THE CHANDLER & PRICE COMPANY • CLEVELAND, OHIO

Printing Presses and Paper Cutters

Branch Offices and Display Rooms:

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IN YOUR FINISHED WORK — GET IN TOUCH WITH MORRILL TO ASSURE YOURSELF OF OBTAINING THE BEST IN SERVICE AND MATERIALS.

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Unexcelled Newspaper Black and colors . . . . Dullest inks that faithfully reproduce the artists designs . . . . in fact inks for all printing processes

GEO. H. MORRILL CO.

Division

GENERAL PRINTING INK CORPORATION

World's largest manufacturers of Newspaper Black and Colors

100 Sixth Avenue, New York City, N. Y.

Factories At:

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Branches At:

Boston, New York, Philadelphia, Detroit, Chicago, St. Louis, Minneapolis, Fort Worth, Los Angeles, San Francisco, Seattle

Printing EQUIPMENT *Engineer*

1936

Equipment and Supplies Reference Number

MANUFACTURERS' INDEX

For the Printing Equipment and Supplies Trade

To the Production or Mechanical Executive:

In the following pages will be found an alphabetical index of printing equipment and supplies manufacturers which is as complete and representative as it is possible to make it.

This Index has been compiled without charge to the manufacturer for *your* convenience, as well as for the convenience of the membership of the National Printing Equipment Association, Inc., and other manufacturers and suppliers to buyers in the printing industry. Consult the Index often and use it freely.

Following this Manufacturers' Index in another section will be found an alphabetical Products Index, which is comprised of machinery and supplies listings under one or more classified headings, with the names and addresses of the companies manufacturing or supplying the products under each suitable heading.

In this Manufacturers' Index we have listed the company name, street address and city, together with a general indication of the major products made by each company.

This Index includes a complete register of all member manufacturers and dealers of the National Printing Equipment Association, Inc. Each listing preceded by an asterisk (*) indicates that the company so marked is a member of the National Printing Equipment Association, Inc. There are exceptions, however, in the manufacturers' listings in that a few of the companies listed are dealers in and movers of machinery, but are also members of the National Printing Equipment Association, Inc.

As will be obvious, the name of each manufacturer advertising in this issue of *Printing* EQUIPMENT *Engineer* has been set in bold face together with the page number upon which the advertisement appears.

Every effort has been made to obtain the names of all printing equipment manufacturers and suppliers to the printing industry and care has been used in compiling the information as submitted to us, yet at the same time we cannot be responsible for errors or omissions.

A

***Abrams Printing Machinery Co., M. L., 1639 Superior Ave., Cleveland, O. Dealers in new and used machinery 121**

Academy Rule Shop, 89 Academy St., Newark, N. J. Mfrs. of metal rule, leads and borders.

***Ace Belting Co., 4300 Washburn Ave. N., Minneapolis, Minn. Cord-rubber line-casting machine belts and drive converters..... 145**

Acheson Ink Co., 142 Skillen St., Buffalo, N. Y. Letterpress, lithographic, offset and developing inks; driers and opaques.

Acme Electric Heating Co., 1217 Washington St., Boston, Mass. Glue and metal pots, matrix platens, embossing plates and gilding wheels.

Acme Gear Co., 701 Wood St., Philadelphia, Pa. No-offset process, paraffining and waxing machines.

*Acme Multicolor Co., 117 N. Wells St., Chicago, Ill.

Acme Press Blanket Co., 117 N. Wells St., Chicago, Ill. Mfrs. of press and packing blankets and fabric packing. 151

Acme Printing Appliance Co., 333 S. Clinton St., Chicago, Ill. Mfrs. of sheet heaters, roller trucks, vibrating distributors, fountain dividers, and other attachments.

Acme Printing Ink Co., 1315 W. Congress St., Chicago, Ill. Letterpress, lithographic and offset inks.

Acme Staple Co., 1643 Haddon Ave., Camden, N. J. Flat and saddle-back stapling machines.

Acme Wood Type Mfg. Co., 61 Beekman St., New York, N. Y. Mfrs. of wood type, rules and borders; engravers' wood.

Advance Mfg. Co., Inc., 350 N. 26th St., Louisville, Ky. Air and paper conditioning equipment.

Agfa-Ansco Camera Co., 245 W. 55th St., New York, N. Y. Photo-engravers' equipment and supplies.

Aigner Co., G. J., 503 S. Jefferson St., Chicago, Ill. Bookbinding materials.

Ajax Metal Co., Inc., 46 Richmond St., Philadelphia, Pa. Metals and fluxes.

Ajax Safety Quoin Mfg. Co., 874 Broadway, New York, N. Y. Mfrs. of quoins.

Albemarle Paper Mfg. Co., The, Box 2189, Richmond, Va. Blotting, cover and specialty papers.

Alco Gravure, Inc., 52 E. 19th St., New York, N. Y. Rotagravure printing equipment and supplies.

Alexander & Cox, 2358 Ogden Ave., Chicago, Ill. Mfrs. of type molds and casting machinery.

Allied Paper Mills, Kalamazoo, Mich. Coated, bristols, book, litho and offset papers.

Allied Printing & Binding Machinery Co., 1975 E. 65th St., Cleveland, O. Dealers in new and used machinery—repairing 122

Allied Steel Equipment Co., Lapeer, Mich. Cabinets, stools, racks and stands.

"All-ready" Dies, The, 56 E. 66th St., New York, N. Y. Mfrs. of sandpaper type high planer.

American Abrasive Metals Co., Irvington, N. J. Non-slip step and floor plates.

American Allsafe Co., Inc., 210 Franklin St., Buffalo, N. Y. Safety guards.

American Blower Corp., 6000 Russell St., Detroit, Mich. Air and paper conditioning equipment.

American Brass Co., The, Waterbury, Conn. Gravure copper and copper anodes.

American Electric Co., 1033 W. Van Buren St., Chicago, Ill. Safety guards.

American Felt Co., 315 Fourth Ave., New York, N. Y. Press and stereotype blankets.

American Finishing Co., 500 S. Peoria St., Chicago, Ill. Tin mounting machines, strips, brass loops, etc.

American Glue Co., 11th Ave. and 28th St., New York, N. Y. Adhesives.

American Machine & Foundry Co., Inc., 511 Fifth Ave., New York, N. Y. Cameras.

American Machine & Mfg. Co., 425 Folsom St., San Francisco, Cal. Mfrs. of sales book machinery—machinists.

American Mfg. Concern. See Hammond Machinery Builders.

American Matrix & Plate Co., Inc., 228 E. 45th St., New York, N. Y. Trade Mats and stereos.

*American Numbering Machine Co., 224 Shepherd Ave., Brooklyn, N. Y. Mfrs. of numbering machines.

American Printers Machine Co., 12 S. Clinton St., Chicago, Ill. Machinists.

American Printing Ink Co. See General Printing Ink Corp.

American Printers Supply Co. See American Steel Chase Co.

American Printing Machinery Co., 41 Hanover St., Boston, Mass. Platen presses and raised letter printing machinery.

American Publishers Supply, P. O. Box 131, West Lynn, Mass. Scorching machines, stereotype, press-room and scorcher supplies, autoplate and composing-room accessories. 16-17-18

American Shading Machine Co., Inc., 800 Prospect Ave., Buffalo, N. Y. Photo-engravers' equipment, accessories and supplies.

*American Steel Chase Co., 122 Center St., New York, N. Y. Mfrs. of chases, saws, trimmers, trucks, rules, galleys, cutters, mitering machines—dealers.

American Steel & Copper Plate Co., Inc., 101 Fairmount Ave., Jersey City, N. J. Photo-engravers' equipment and supplies.

American Steel & Wire Co., 208 S. LaSalle St., Chicago, Ill. Stitching wire.

American Transfer Paper Co., 1759 Sunnyside Ave., Chicago, Ill. Prepared transfer paper.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. Mfrs. of printing presses, parts, type, stitchers, cutters, etc. Dealers in printers' supplies and equipment 60A-60B-62-90**

American Type-O-Writer Co., Ltd., 212 Chevy Chase Dr., Glendale, Cal. Typewriter keyboard for linotypes and intertypes.

American Wood Type Mfg. Co., 270 Lafayette St., New York, N. Y. Mfrs. of wood products.

American Writing Paper Co., Inc., Holyoke, Mass. Bond, linen, ledger, writing, bristol, book, offset, cover, wedding, papeterie and greeting card papers.

American Zinc Products Co., Greencastle, Ind. Zinc lithographic and engravers' plates 142

Amthor Testing Instrument Co., 10 Leo Pl., Brooklyn, N. Y. Paper testing instruments.

Anderson & Co., C. F., 3225 Calumet Ave., Chicago, Ill. Mfrs. of trucks, folders and binding machinery, binding and bundling presses.

Andrews Heating Co., 117 S. E. Main, Minneapolis, Minn. Chases and locking devices.

Anderson Knife & Bar Co., 1815 Locust St., Anderson, Ind. Cutting knives.

Angle Steel Stool Co., 820 N. Oak St., Plainwell, Mich. Composing room steel furniture.

Arabol Mfg. Co., Inc., The, 110 E. 42nd St., New York, N. Y. Adhesives, photo-engravers' equipment and supplies.

Arkin Typographers, Inc., 160 E. Illinois St., Chicago, Ill. Plate transfers.

Armstrong Cork Products Co., Lancaster, Pa. Vibration eliminator.

*Arnold Numbering Machine Works, 9 N. Franklin St., Chicago, Ill. Dealers and repairers of numbering machines.

Assheton Press Mfg. Co., Baltimore, Md. Printing presses.

Athol Mfg. Co., Athol, Mass. Artificial leather and cloths for bookbinding.

Atkins & Co., E. C., 402 S. Illinois St., Indianapolis, Ind. Paper knives and slitters, cutting, scoring and perforating rule, saws, files and ozokerite.

Atlantic Zinc Works, 210 Van Brunt St., Brooklyn, N. Y. Mfrs. of Zomo Electric Zinc and A-Z Alloy engravers' plates 133

Atlas Electric Devices Co., 361 W. Superior St., Chicago, Ill. Engravers' equipment and supplies.

Ault & Wiborg, Dana Ave., Cincinnati, O. Adhesives.

Aurora School of Photo-engraving, The, Aurora, Mo. Photo-engraving equipment and supplies.

Austin Co., The, 16112 Euclid Ave., Cleveland, O. Building engineers.

Automatic Box Machinery Concern, 270 Congress St., Boston, Mass. Carton makers' machinery.

Automatic Saw Sharpening Co., 735 E. Ohio St., Indianapolis, Ind. Saws, routers, type-hi planers; water cooler for composing machines 140

Auto Sheet Metal Works, 735 E. Gage St., Los Angeles, Cal. Mfrs. of composing room steel furniture.

B

*Babcock Printing Press Mfg. Co., 38 Pequot Ave., New London, Conn. Mfrs. of cylinder presses, automatic job presses, rotary color presses, cutting and creasing machines.

Bache, Semon & Co., Inc., 640 Greenwich St., New York, N. Y. Magnifying and reducing glasses.

Baer Bros., 438 W. 37th St., New York, N. Y. Dusting and ink bronzes, ink varnish.

Bahnson Co., The, 1605 Reynolds Bldg., Winston-Salem, N. C. Air and paper conditioning equipment.

Baker Machine Co., A. F., 142 Oliver St., Boston, Mass. Dealers in new and used machinery.

Baker-Vawter Co., 4th and Park Sts., Benton Harbor, Mich. Metal parts for loose leaf binders.

Baltimore Type & Composition Corp., 15 S. Frederick St., Baltimore, Md. Mfrs. of type, rules and spacing materials.

Bancroft & Sons Co., Joseph, Wilmington, Del. Bookbinding materials.

Barager, M. E., 6523 20th Ave., N.E., Seattle, Wash. Dealer in typesetting machinery, parts and supplies.

Barkley Associates, 176 Federal St., Boston, Mass. Wrapping machines.

Barnard Mfg. Co., Paul J., 1600 Junction Ave., Racine, Wis. Mfrs. of embossers, drying equipment and heaters.

*Barma Sales Agency, 530 Atlantic Ave., Boston, Mass. Bronzing and dusting machines.

Barrett-Cravens Co., 3255 W. 30th St., Chicago, Ill. Trucks.

Barton Mfg. Co., 4 Cortlandt St., New York, N. Y. Time clocks, recorders and stamps.

Bates Mfg. Co., The, Lakeside Ave., West Orange, N. J. Numbering, eyeletting machines; punches.

Bauer Type Foundry, Inc., The, 235 E. 45th St., New York, N. Y. Mfrs. of foundry type. 115

*Baum, Russell Ernest, 615 Chestnut St., Philadelphia, Pa. Mfrs. of folding machines, dealers in folding machines, feeders and presses.

Bausch & Lomb Optical Co., Rochester, N. Y. Magnifiers and microscopes.

Beall, James I., 115 S. Union St., Akron, O. Dealer in printers' supplies.

Becker-Kowalick Co., 1722 W. Austin Ave., Chicago, Ill. Binder, mailing and make-up tables and benches.

Beckfield Rotary Vacuum Blower Co., 221 Penn Ave., Pittsburgh, Pa. Air and ink pumps; blowers.

Beckett Paper Co., The, Hamilton, O. Covers, book and offset papers.

Beck Machinery Co., Chas., 414 N. 13th St., Philadelphia, Pa. Carton makers' machinery, cutting machines and knives.

Behr-Manning Corp., Troy, N. Y. Press blankets and draw sheets.

Belmont Smelting & Refining Works, Inc., 318 Belmont Ave., Brooklyn, N. Y. Composing, stereotype and electrotype metals.

Ben Day, Inc., 118 E. 28th St., New York, N. Y. Shading machine equipment, etching ink and gamboge.

*Benson & Co., W. B., 1018 Douglas St., Omaha, Neb. Dealers in new and used machinery, repairs and rebuilds.

Berger Mfg. Co., The, Canton, O. Steel office and filing furniture.

Berry Machine Co., 716 N. First St., St. Louis, Mo. Mfrs. of round hole cutting machine, paper lifts attached to presses, pneumatic book presses. Machinists, repairers.

Bijur Lubricating Corp., 22-08 43rd Ave., Long Island City, N. Y. Lubricating equipment.

Bingham Bros. Co., 406 Pearl St., New York, N. Y. Printing press rollers, glues and padding compounds.

Bingham & Richards Mfg. Co., 807 Sycamore St., Cincinnati, O. Composition rollers.

Bingham & Runge Co., The, 1374 E. 12th St., Cleveland, O. Seasonal composition rollers, all-season rollers and padding glue.

Bingham's Son Mfg. Co., Sam'l, 636 Sherman St., Chicago, Ill. Composition, rubber, canvas-covered, graining, offset, lithograph, varnish, lacquer rollers, and glues.

Binney & Smith Co., 41 E. 42nd St., New York, N. Y. Letterpress inks.

Black-Clauson Co., 2nd and Vine St., Hamilton, O. Ink mixing equipment.

Black Cross Metal Cleanser Co., 128 Moss Ave., Highland Park, Mich. Metal cleaner.

Black Rock Mfg. Co., Bridgeport, Conn. Rubber roller grinders and polishers, and roller gauges.

Blatchford Co., E. W., 63 Park Row, New York, N. Y. Mfrs. of plate mounting bases, pin catches, ratchet catches, printing metals and fluxes. 124

Blomfelt & Rapp Co., 108 N. Jefferson St., Chicago, Ill. Cutting and macerating machines.

Blomquist, Carl, 714 S. Dearborn St., Chicago, Ill. Machinist.

Bobemeter Mfg. Co., 1276 W 3rd St., Cleveland, O. Bobemeter for gauging stereo plates. 151

Bodine Electric Co., 2254 W. Ohio St., Chicago, Ill. Mfrs. of sawing, trimming and tool grinding machinery.

Bolton & Son, Inc., John W., Lawrence, Mass. Ink and makeready knives.

Booth, The E. A., Rubber Co., 364 Rockefeller Bldg., Cleveland, O. Rubber rollers and gloves, printers' cut cement and engravers' rubber cement 137

Booton & Co., C. H., 304 Second Ave., Gallipolis, O. Mfrs. of automatic register for platen presses.

Boston Saw & Knife Co., 102 Pearl St., Boston, Mass. Cutting sticks.

*Boston Wire Stitcher Co., Division St., E. Greenwich, R. I. Mfrs. of wire stitchers, staples and stapling machines.

Bourges Service, Inc., 175 Fifth Ave., New York, N. Y. Artist shading sheets.

*Brackett Stripping Machine Co., 505 Jackson St., Topeka, Kans. Mfrs. of stripping machines and safety trimmers.

Braden-Suthpin Ink Co., The, 1736 E. 22nd St., Cleveland, O. Printing, litho-offset, water color inks, varnishes and driers. 22

Bradley Co., Inc., Milton, 74 Park St., Springfield, Mass. Adhesives.

Brandl, W., 213 Austin Ave., Chicago, Ill. Machinist.

***Bandtjen & Kluge, Inc., Gaultier at Como Ave., St. Paul, Minn. Mfrs. of automatic platen presses and feeders, electric die heaters and roller trucks. .. 57**

Breuer Electric Mfg. Co., 852 Blackhawk St., Chicago, Ill. Portable blowers and cleaners.

*Brintnall Co., Harry W., 51 Clementina St., San Francisco, Calif. Dealers in machinery and supplies for printers and book binders.

Bristol Co., The, Waterbury, Conn. Temperature and humidity recording devices.

Brooklyn Printers Exchange, 35 York St., Brooklyn, N. Y. Dealers in used machinery and equipment.

Brown Co., 404 Commercial St., Portland, Me. Bond, ledger, bristol, cover and offset paper.

Brown, L. L., Adams, Mass. Ledger, linen, bond, bristols, covers and onion skin paper.

Brown Folding Machine Co., 18th and German Sts., Erie, Pa. Mfrs. of folding machines.

Brown Instrument Co., The, Wayne & Roberts Aves., Philadelphia, Pa. Recording thermometers and gauges.

Brown-Lindsay Paint Co., 1420 Center St., Chicago, Ill. Oil stencil process machines and inks.

Brown & Sharpe Mfg. Co., Providence, R. I. Paper gauge micrometer and tools for the printing machinist.

Bryant Paper Co., Kalamazoo, Mich. Offset, book and coated papers.

Buckeye Paste Co., 270 S. Wall St., Columbus, O. Adhesives.

Buckie Printers Ink Co., 714-716 S. Clark St., Chicago, Ill. Dryers, letterpress, lithographic and offset inks.

Buckie Printers' Roller Co., 714 S. Clark St., Chicago, Ill. Adhesives and composition rollers.

Buffalo Forge Co., 490 Broadway, Buffalo, N. Y. Air conditioning equipment.

Bultman & Co., F. H., 10271 Berea Rd., Cleveland, O. Mfrs. of special machinery. Repairs and rebuilds.

Bunn Co., B. H., Vincennes Ave. at 76th St., Chicago, Ill. Tying and bundling equipment.

Burgess Cellulose Co., Freeport, Ill. Stereotype dry mats. 19

Burke Machine Tool Co., The, Cinneaut, O. Paper Drilling and drill slotting machines.

Burrage, Robert R., 15 Vandewater St., New York, N. Y. Padding and bookbinding glue.

Burton Co., A. G., See Nygren-Dahley Co.

*Bush-Krebs Co., Inc., 408 W. Main St., Louisville, Ky.

Business Men's Paper Press Co., Wayland, Mich. Paper balers.

Byron Weston Co., Dalton, Mass. Bond and ledger papers

MEISEL PRESS ASKS

WHAT IS YOUR PRINTING PROBLEM ?

HERE ARE A FEW OF OUR MANY HIGHLY SUCCESSFUL SOLUTIONS OF YESTERDAYS PRINTER'S PROBLEMS

★ Inking mechanisms to suit various conditions.

★ Fountains of different types to suit conditions.

★ Cutting methods of great diversity.

★ Centrally controlled drive for close register on rotary presses.

★ Numbering devices, coding, imprinting, with suitable numbering machines.

★ Tissue paper delivery for high speed.

★ Sheet manipulation for color work.

★ Punching, Perforating, Pasting, Collating and Deliveries.

★ Folding of various types.

★ Adjustability of the greatest completeness in rotary presses.

★ Rotary web embossing.

★ Rotary web bronzing.

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MEISEL PRESS MANUFACTURING CO.
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C

California Ink Co., 545 Sansome St., San Francisco, Calif. Composition rollers; letterpress, lithographic and offset inks, photo-engraver's equipment and supplies.

*California Printers Supply Co., 407 E. Pico St., Los Angeles, Calif. Dealers in new and used presses, machinery, etc. and type.

Calloway Mills, 295 Fifth Ave., New York, N. Y., Wiping towels.

Cambridge Instrument Co., Inc., 3732 Grand Central Terminal Bldg., New York, N. Y. Paper moisture indicators, electrical indicating and recording instruments.

Cameron Machine Co., 61 Poplar St., Brooklyn, N. Y. Paper slitting and winding equipment.

Campbell, James, 154 Nassau St., New York, N. Y. Linotype and Intertype supplies, repairs, molds and liners.

Campbell Printing Press, 118 199th St., St. Albans, N. Y. Dealers in printing press parts, printers' machinist.

Cannon Electric Development Co., 420 West Ave., Los Angeles, Calif. Heaters.

Cantine Co., Inc., Martin L., 501 Fifth Ave., New York, N. Y. Overlays.

Carborundum Co., Buffalo Ave., Niagara Falls, N. Y. Knife grinding machines and stones.

Carlson, Inc., John P., 420-428 Carroll St., Brooklyn, N. Y. Letterpress, lithographic, offset and water color inks.

Carmichael Blanket Co., 223 Garnett St., S. W., Atlanta, Ga. Press and stereotype blankets.

Carpenter Co., Inc., L. E., 444 Freylinghuysen Ave., Newark, N. J. Bookbinding materials.

Carrier Engineering Corp., 850 Freylinghuysen Ave., Newark, N. J. Air conditioning equipment.

Carrom Co., The, 215 Ludington Ave., Ludington, Mich. Mounting lumber and electrotype backing.

Casper Gripper Co., 357 Bangor Bldg., Cleveland, O. Grippers for job presses.

Cavagnaro, John J., 5th and Essex Sts., Harrison, N. J. Roughing machines.

Cavrichi Polishing Machine Co., 125 Water St., Quincy, Mass. Lithographic stones and grinders.

Celluloid Corp., 10 E. 40th St., New York, N. Y. Celluloid.

Celucoating Process Co., 2924 Locust St., St. Louis, Mo. Mfrs. of coating machines.

Central Machine Works, 437 S. Senate Ave., Indianapolis, Ind. Paper roll trucks and moulding machines.

Century Electric Co., 1806 Pine St., St. Louis, Mo. Electric fans and motors.

Certified Dry Mat Corp., 342 Madison Ave., New York, N. Y. Stereotype dry mats. 32

***Challenge Machinery Co., Fulton Ave. and Beech Tree St., Grand Haven, Mich. Mfrs. of presses, cutters, drillers, routers, punches, knives, cabinets, motors, iron furniture, etc. 21**

Chalmers Chemical Co., 123 Chestnut St., Newark, N. J. Type cleaner.

*Chambers Bros. Co., 52nd and Media Sts., Philadelphia, Pa. Mfrs. of feeders for folding machines, folding and varnishing machines.

Chambon Corp., 911 New York Ave., Union City, N. J. Rotary printing presses built to order.

Champion Paper & Fibre Co., The, Hamilton, O. Coated, and uncoated papers, cardboards, bristols, Kraft wrapping, bond and writing paper.

***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O. Mfrs. of printing presses and paper cutters. 63**

Channing, Alfred W., St. Albans, New York, N. Y. Remelting furnaces and composing machine metal feeders.

Chapman Sales & Mfg. Co., 112 N. 3rd St., St. Louis, Mo. Dealers in used machinery. Repairers.

Charnock Co., 160 Ellicott St., Buffalo, N. Y. Dealers in printing machinery, type and supplies. Machinists.

Chemco Photo-Products, Inc., Glen Cove, L. I. Mfrs. of photo-engravers' supplies.

Cheshire Mailing Machines, 1016 N. Dearborn St., Chicago, Ill. Diek mailing machines.

Chicago Grinding & Machine Co., 2117 Tilden St., Chicago, Ill. Knife grinders and dealers in knives.

Chicago Lino Maintenance Co., 564 W. Randolph St., Chicago, Ill. Dealers and repairers of linotypes.

Chicago Lino-Tabler Co., 53 W. Jackson Blvd., Chicago, Ill. Control patents for Lino-Tabler multiple broach.

Chicago Metal Manufacturing Co., 3724 S. Rockwell St., Chicago, Ill. Galleys.

Chicago Paper Box Machine Works, Inc., 2059 Emerson St., Chicago, Ill. Dealers in new and rebuilt paper box machinery.

Chicago Plate Graining Co., 216 North Clinton St., Chicago, Ill. Litho plate graining.

Chicago Printers Machinery Works, 609 W. Lake St., Chicago, Ill. Dealer in new and used machinery and supplies. Repairer.

Chicago Roller Co., 554-570 W. Harrison St., Chicago, Ill. Composition, rubber, lithographic and offset rollers, varnishes, lacquers and glues.

Chicago Type Foundry, 553 S. Clark St., Chicago, Ill. Mfrs. of type.

Chicago Steel & Wire Co., 103rd St. and Torrence Ave., Chicago, Ill. Bookbinding and box-making wire.

Chicago Wheel & Mfg. Co., 1103 W. Monroe St., Chicago, Ill. Portable routers and grinders.

***Christensen Machine Co., The, 100 Fourth St., Racine, Wis. Mfrs. of paper feeders for presses, folders and sheet fed machines, bronzers, heaters, stitchers and stitching wires. 11**

Cincinnati Time Recording Co., Inc., 1733 Central Ave., Cincinnati, O. Time clocks, recorders and stamps.

Clark, E. C., 3630 Bloomington Ave., Minneapolis, Minn. Mfrs. and dealers in grippers.

Clark Co., Geo. P., Canal Bank, Windsor Locks, Conn. Trucks; binder, mailing and make-up tables and benches.

Clark Mfg. Co., 53 Washington St., New York, N. Y. Mfrs. of knives, circular cutters, steel chases for printers, book binders and box makers.

*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis. Mfrs. of printing presses, plate-making equipment and supplies.

Clean-A-Press Machine Co., 821 3rd St., Des Moines, Ia. Offset roller cleaning attachment.

*Clements Mfg. Co., 6650 S. Narraganset Ave., Chicago, Ill. Blowers.

Cleveland Folding Machine Co. See Dexter Folder Co.

***Cline Electric & Mfg. Co., 211 W. Wacker Dr., Chicago, Ill. Mfrs. of reel and tension machinery and equipment, press and motor drives and controls, counters, reels, tension controls, high-speed pasters, conveyors and plate drops. 13**

Coated Textile Mills, Inc., Pawtucket, R. I. Bookbinding materials.

*Cochrane-Bly Co., 15 St. James St., Rochester, N. Y. Mfrs. of offset presses.

Coes Co., Loring, 1 Coes Sq., Worcester, Mass. Carton makers' machinery, foil; cutting, ink and make-ready knives, planing, sawing and trimming machines, shears and blades.

Coffing-Hoist Co., 313 E. Van Buren St., Danville, Ill. Metal feeders for intertypes and linotypes.

Collin, Herbert L., 52 Beekman St., New York, N. Y. Dealer in used machinery and composing room equipment, importer of foreign type.

Collings Mfg. Co., A. M., 226 Columbia Ave., West Philadelphia, Pa. Chalk overlay for press make-ready, book and cover papers and cardboards.

Columbia Mills, Inc., 225 Fifth Ave., New York, N. Y. Bookbinding materials.

Columbia Offset Photo Litho & Repro. Co., 2 Duane St., New York, N. Y. Lithographic and offset plate transfers.

Columbia Planograph Co., The, 50 L St., N.E., Washington, D. C. Photo-engravers' equipment and supplies, printing presses.

Columbia Printing Machinery Corp., 2 Lafayette St., New York, N. Y. Printing presses and decalcomania printing equipment.

Commercial Press, The, 70 Exchange St., Rochester, N. Y. Dealer in new and used machinery.

Composing Room Engineers, Inc., 1817 Guarantee Title Bldg., Cleveland, O. Mold liner protector. 125

Connell & Dengler Machine Co., 371 St. Paul St., Rochester, N. Y. Carton printing presses.

Conroy-Prugh Glass Co., 1430 Western Ave., Pittsburgh, Pa. Magnifying and reducing glasses.

Consolidated Printing Ink Co., 431 N. Griggs St., St. Paul, Minn. Composition rollers, letterpress, lithographic and offset inks.

Continental Type Founders Assn., 228 E. 45th St., New York, N. Y. Mfrs. of type and composing room equipment; importers of type.

Cooper-Hewitt Electric Co., 863 Adams St., Hoboken, N. J. Photo-engravers' equipment and supplies.

Corkpak Co., Inc., The, 250 E. 43rd St., New York, N. Y. Press and stereotype blankets, draw sheets, cutting knives and cutting rubbers. 145

***Cottrell & Sons Co., C. B., P. O. Drawer No. 515, Westerly, R. I. Mfrs. of rotary web magazine presses, sheet fed rotary presses, roll fed bag presses, proof presses; electrotype and stereotype machinery, cutting and creasing presses 10**

Covel-Hanchett Co., Big Rapids, Mich. Paper slitting knife grinders, knife balances and saw sharpeners.

Coyne & Paddock, Inc., 48-15 32nd Pl., Long Island City, N. Y. Cork and rubber blankets 143

*Craftsman Line-Up Table Corp., 49 River St., Waltham, Mass. Mfrs. of line-up tables.

Craftsman Machinery Co., 307 Atlantic Ave., Boston, Mass. Lead and rule cutters, mitering machine, job and hand presses 2-143

Craig Sales Corp., 636 Greenwich St., New York, N. Y. Mfrs. of offset eliminating devices, automatic gas attachment for job presses.

Cramer Dry Plate Co., Shenandoah Ave., St. Louis, Mo. Lithographic plate negative materials.

Crane, H. G., 32 Front St., Adrian, Mich. Sawing and trimming machines.

Crawley Book Machinery Corp., 328 Keturah St., Newport, Ky. Mfrs. of bookbinding machinery.

Crescent Ink & Color Co. of Pa., 464 N. 5th St., Philadelphia, Pa. Letterpress, litho and offset inks, varnishes and driers.

Croke Co., Allen B., 163 Oliver St., Boston, Mass. Burning-in stoves and depth guages.

Crocker-McElwain Co., Holyoke, Mass. Bonds, covers, ledger, offset, onion-skin and writing papers.

Cromwell Paper Co., The, 4801 S. Whipple St., Chicago, Ill. Tympan paper.

*Cross Paper Feeder Co., 185 Summer St., Boston, Mass. Mfrs. of press feeders and folders.

Curle Mfg. Co., Inc., 500 Sansome St., San Francisco, Calif. Mfrs. of composing room saws.

Currier, Cyrus & Sons, Inc., 365 Market St., Newark, N. J. Varnishing machines.

Cushman Electric Co., 69 S. Main St., Concord, N. H. Mfrs. of motor for typecasting machines, routing machines and heads.

Cutler-Hammer, Inc., 542 N. 12th St., Milwaukee, Wis. Electric switches and controls for printing machinery.

D

Damon & Peets, Inc., 56 Beekman St., New York, N. Y. Dealers in type and printers' supplies. 151

Damon Type Foundry. See New Jersey Type Foundry.

Davenport Mfg. Co., Davenport, Ia. Baling presses and waste receptacles.

Davidson Perforator Corp., 7157 68th Pl., Glendale, Brooklyn, N. Y. Mfrs. of perforators, scorers and slitters for presses.

Day Co., J. H., 1144 Harrison, Cincinnati, O. Ink mixing equipment.

Dayton Rubber Mfg. Co., The, Dayton, O. Printing press ink rollers.

De Jonge & Co., Louis, 71 Duane St., New York, N. Y. Coated papers and tape moisteners.

Denison, D. T. S., 40 E. 22nd St., New York, N. Y. Index card printing press.

Dennison Mfg. Co., Inc., Howard St., Framington, Mass. Adhesives.

Denny, Hilborn & Rosenbach, 230 N. 12th St., Philadelphia, Pa. Adhesives.

Detroit Edge Tool Co., 433 Mt. Elliott Ave., Detroit, Mich. Paper cutting and specialty knives.

*Detroit Numbering Machine Co., 535 Bates St., Detroit, Mich. Dealers and repairers of numbering machines.

*Dexter Folder Co., 28 W. 23rd St., New York, N. Y. Mfrs. of folding machines, sheet feeders, inserting machines, Croos feeders and Christensen stitcher feeders, bundling presses and trimmers.

Dexter & Sons, Inc., C. H., Windsor Locks, Conn. Bond and ledger papers.

Dickinson, C. W., Jr., 321 Cortland St., Belleville, N. J. Mfrs. of banknote machinery.

Dick's Patent Mailer, 137 W. Tupper St., Buffalo, N. Y. Mailing machines.

Diem & Wing Paper Co., Inc., Gilbert Ave. Viaduct, Cincinnati, O. Adhesives.

Dietz Machine Works, 126 Fontain St., Philadelphia, Pa. Cutting and metal beveling machines.

Dilkes Co., Inc., C. E., 6 Dawson St., Newark, N. J. Mfrs. of small printing machines.

Dill & Collins, Inc., Richmond and Tioga Sts., Philadelphia, Pa. Book, offset, writing, cover, music and specialty papers.

Disston, Inc., Henry, & Sons, Delaware Ave. at Unruh St., Philadelphia, Pa. Cutting, ink and make-ready knives, blades and saw discs.

Division Lead Co., 836 W. Kinzie St., Chicago, Ill. Composing, stereotype and electrotype metals.

Dixon Crucible Co., Joseph, Jersey City, N. J. Graphite and graphite products. 139

Dison Co. See Automatic Saw Sharpening Co.

Dixon & Co., Norval H., 345 Poplar Rd., Indianapolis, Ind. Parts and supplies for intertypes and linotypes.

Dobler & Mudge, 113 Hopkins Pl., Baltimore, Md. Stereotypers' machinery, accessories and supplies.

Dodson Printers Supply Co., 231 Pryor St., S.W., Atlanta, Ga. Dealers in new and used machinery and supplies.

Doepel Co., J. E., 621-623 Cherry St., Philadelphia, Pa. Automatic sheet cutting, glueing and pasting machines.

Do-More Chair Co., 216 Monger Bldg., Elkhart, Ind. Chairs.

Dom Supply Co., G. C., 125 E. Parl St., Cincinnati, O. Dealers in engravers', electrotypers' and lithographers' supplies.

Dorsey Printers Supply Co., Inc., 88 Hernando St., Memphis, Tenn. Mfrs. and dealers in electrotype, stereotype and printers' supplies.

Douhitt Corp., 650 W. Baltimore St., Detroit, Mich. Mfrs. of photogravure device, supplies and repairs.

Dowd Knife Works, Inc., R. J., 717 2nd St., Beloit, Wis. Cutting, ink and make-ready knives.

***Doyle Co., J. E., 310 Lakeside Ave., N.W., Cleveland, O. Mfrs. of electric sheet heaters, vacuum sheet cleaner, ink distributor and vibrating rollers. 151**

Driscoll & Co., Martin, 610 Federal St., Chicago, Ill. Letterpress, lithographic and offset inks.

*Dubrow & Hearne. See Graphic Arts Machine Agency.

Duplex Printing Press Co., Battle Creek, Mich. Mfrs. of newspaper presses and stereotype machinery and supplies. 14

DuPont, DeNemours & Co., I. E., 140 N. 6th St., Philadelphia, Pa. Celluloid and bookbinding materials.

Duro Overlay Process, 579 Ravenswood Circle, Wauwatosa, Wis. Overlays.

Dust-Less Equipment Co., 1406 Monroe St., N.E., Washington, D. C. Rubber roller grinding and finishing equipment, and roller setting gauges. 126

E

Eagle Ottawa Leather Co., 912 W. Washington Blvd., Chicago, Ill. Bookbinding materials.

Eagle-Picher Sales Co., 4401 S. Western Ave., Chicago, Ill. Metal renovators, cleaners and fluxes.

Eagle Printing Ink Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y. Printing, lithographic and offset inks.

Eagle Sheet Metal Mfg. Co., 1300 Fletcher St., Chicago, Ill. Galleys.

Eastern Malleable Iron Co., Naugatuck, Conn. Mfrs. of quoins.

Eastern Mfg. Co., 500 Fifth Ave., New York, N. Y. Bond, cover, ledger, vellum, wedding and writing papers.

Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston, Mass. Electrotype, linotype, monotype and stereotype metals.

Eastman Kodak Co., 343 State St., Rochester, N. Y. Celluloid, photo-engravers' equipment and supplies.

Eaton Paper Co., Adams, Mass. Bond, ledger and bristol papers.

Ebolite Corp., 1018 S. Wabash Ave., Chicago, Ill. Special engraving process.

Economy Baler Co., Inc., 1254 N. Main St., Ann Arbor, Mich. Baling presses and ties.

EXTRA **KLEAN-O-MAT NEWS** EXTRA

VOLUME 1 NEW YORK, NOVEMBER, 1935 NUMBER 2

Klean-O-Mat Process Produces Results in U.S. Gov't Printing Plant

World's Largest Printing Plant Obtaining "Wonderful Results" From Use Of Modern Method For Cleaning Mats and Magazines

Washington, D. C.—(Special from "K-O-M" Representative)—The Government printing establishment, here, which is the largest in the world, is using the "KLEAN-O-MAT" Process, installed the forepart of this year, with genuine satisfaction. This installation, made only after a searching investigation, is the most important in the record of "K-O-M."

The "KLEAN-O-MAT" machine and Compound—(largest single order ever placed)—are "delivering the goods," day in and day out, on the vast number of fonts of "mats" and magazines, in this great plant and the report comes that, "the equipment is going along every day and giving wonderful results."

In view of the Government installation, and others of importance (to be announced shortly), it would appear that "KLEAN-O-MAT" has, successfully met, and solved, a truly vexing problem.

Klean-o-Mat PROCESS

"Klean-O-Mat" Compound is Safe, Cheap, Harmless

Exhaustive tests made by, or on behalf of, users have conclusively proved that "KLEAN-O-MAT" Compound does not etch the brass nor harm "falsewalls" or side walls. Moreover, it has been proved that the Compound does not cause the slightest sign of "pitting." "KLEAN-O-MAT" is the lowest-priced compound on the market. In one city (Philadelphia) and suburbs, one salesman established over 230 new users for "KLEAN-O-MAT."

The Latrobe, Pa., *Bulletin*, wrote: "After using several, find compound everything claimed . . . mats and cams were in bad condition . . . after one application the results were unbelievable . . . no ill effects on face or walls, a matter of concern to us . . . feel investment is good one as time saved in clean proofs compensates for money spent."

From A. R. Saylor Printing Co., Wilmington, Del., comes the following: ". . . results accorded perfectly with claims . . . a distinct improvement in matter of "hang-ups" . . . on score of readability alone "K-O-M" justifies itself . . . no eye-strain."

Cost of Operation is Surprisingly Low

The saving of time by cleaning mats and magazines in one operation, as well as the great reduction in errors; elimination of back tracking; double handling and extra proof reading more than justifies the moderate cost of the "KLEAN-O-MAT" Process. Every owner of line-casting machines, or his composing room executive, should write KLEAN-O-MAT COMPANY, 21 West St. (Suite 1001), New York, for complete details.

Klean-o-Mat PROCESS

Type of Machine Installed In U. S. Government Plant

Above is pictured the latest model "KLEAN-O-MAT" machine recently installed in the Government plant in Washington. The Model "E" is equipped with double drive; reversible cover to permit cleaning cam racks (assembled); double shell, insulated drying chamber heated with "finstrip" air-blast element and motor-driven fan which provides air-blast.

The Klean-O-Mat Co., 21 West Street, New York, manufactures three models and can fit any plant, regardless of size. A comparative cost analysis, based on your equipment, will be submitted without obligation.

Canadian Government Printing Plant Also Uses and Enthusiastically Endorses the Machine Method

Ottawa, Can.—The Canadian Government Printing Plant, second largest Government plant on this continent, has long been a user of the machine method and in answering a Montreal inquiry, stated, "Yes, we use it—have used it for the past year—and find it the best."

In addition to those already mentioned on this page, other prominent users of the machine process are: Pittsburgh, Pa., *Sun-Telegraph* (Hearst); Portland, Me., *Telegram-Express;* Jersey City Printing Co.; Harrisburg, Pa., *Patriot;* Service Linotyping Co., Toronto's leading trade composition plant; Maxwell L. Jones Co., Washington's largest trade plant, etc.

Satisfied users are the best endorsement for any product. A list of users nearest you will be furnished upon application.

Klean-o-Mat PROCESS

"Klean-O-Mat" Users Are Liberal in Their Praise

From the smallest daily to the largest, users are unstinting in their praise of this modern method.

The Bethlehem, Pa., *Globe-Times* says: "Do not hesitate to refer anyone to us for we'll be glad to tell why we consider it a necessity."

The Hamilton (Can.) *Spectator* (Southam chain), writes: ". . . more than pleased . . . reduced errors more than 50% . . . operators amazed and pleased with elimination of errors and transpositions and relief from eye-strain."

A Scripps-Howard Daily, the Washington, D.C., *Daily News*, reports: "Results highly satisfactory . . . found no injury to mats, magazines or cams . . . false-walls not touched . . . consider a good investment."

An eight-machine daily (Jamestown, N. Y., *Journal*) states: "Performs well, work for which intended. Regard as useful and valuable . . . would again, under similar circumstances, purchase equipment."

From the Altoona, Pa., *Mirror*: "We want to tell you we are well pleased with results obtained."

The Wilmington, Del., *News-Journal*: "It really does what is claimed. Simple and easy to operate . . . consider old way of running mats out as obsolete as beating in wet mat with old-fashioned brush."

Economy Engineering Co., 2643 W. Van Buren St., Chicago, Ill. Trucks. **151**

Economy Machine Products Co., 5214 Lawrence Ave., Chicago, Ill. Varnishing machines.

Econo Products, Inc., 52 James St., Rochester, N. Y. Rubber printing plate making material and rubber stereotypes.

Edes Mfg. Co., Plymouth, Mass. Engravers' zinc and copper plates. **128**

Egry Register Co., 417-435 E. Monument Ave., Dayton, O. Roll-form printing press. Metal parts for loose leaf.

Electric Heating Co., Inc., 8616 Madison Ave., South Gate, Calif. Metal feeders and pots.

Electro-Hydraulic Machine Co., The, Kent, O. Direct pressure molding machines, drying tables. **55**

Elgin Bending Machine Co., 706 Douglas Ave., Elgin, Ill. Mfrs. of bending machine for electrotypers and stereotypers, shaving machine and matrix making machine.

Elliott Addressing Machine Co., Cambridge, Mass. Mfrs. of bill printing, addressing and envelope sealing machines and supplies.

Ellis Co., George H., 272 Congress St., Boston, Mass. Line-up tables and systems.

Embossograph Process Co., 251 Williams St., New York, N. Y. Mfrs. of embossing machines, heaters, compounds and inks.

Emerson Electric Co., 2018 Washington St., St. Louis, Mo. Motor drives.

Empire Machine Knife Works, 196 Hester St., New York, N. Y. Dealers in knives and shears; knife grinders.

Empire Metal Co., 820 E. Water St., Syracuse, N. Y. Linotype, monotype and stereotype metals.

Empire Type Foundry, 25 Main St., Delevan, N. Y. Mfrs. of metal type, rules and borders, cabinets, saw tables and blades.

Empire Wood Type Mfg. & Engrg. Co., 252 Water St., New York, N. Y. Mfrs. of wood type **151**

Engravers & Printers Machinery Co., Sag Harbor, L. I., N. Y. Photo-engravers' equipment and supplies.

Ensign-Reynolds, Inc., 4 Irving Pl., New York, N. Y. Stereotype and electrotype furnaces; gas and air blowers, compressors, etc.

Erkenbrach Co., George A., 143 Liberty St., New York, N. Y. Plate making chemicals and supplies.

Esleeck Mfg. Co., Turners Falls, Mass. Bond and ledger papers.

Eureka Photo Mechanical Equip., Inc., 350 W. 31st St., New York, N. Y. Mfrs. of photo composing machines and plate whirlers, to order.

Ever Ready Machinists, Inc., 10 Peck Slip, New York, N. Y. Steel chases and paper cutters.

Ewald Co., L., 1726 Second Ave., Minneapolis, Minn. Mfrs. of well brushes and linotype plunger cleaners.

Excello Machine Co., 412 Umatilla St., Grand Rapids, Mich. Machinists.

F

Fairbanks Co., Inc., The, 393 Lafayette St., New York, N. Y. Trucks.

Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill. Air and ink pumps.

Falulah Paper Co., 500 Fifth Ave., New York, N. Y. Coated cardboard.

Farnsworth, John, Bourse Bldg., Philadelphia, Pa. Dealer in new and used machinery.

Fate-Root-Heath Co., The, 234-269 High St., Plymouth O. Mfrs. of knife grinders.

Federated Metals Corp., 600 W. 41st St., Chicago, Ill. Composing and stereotype metals.

Federal Paper Board Co., Inc., 24 River Rd., Bogota, N. J. Paper-board specialties, linings and wrappers.

Felt Products Mfg. Co., 1508 Carroll Ave., Chicago, Ill. Tape moisteners.

Findley Co., The F. G., 1243 N. Tenth St., Milwaukee, Wis. Pastes and glues of all kinds; envelope gums.

FitzPatrick Felt Mfg. Co., 4024 Hamilton Ave., Cleveland, O. Printing press cork blankets. **93**

Flexideal Dry Mat Co., 21 West St., New York, N. Y. Stereotype dry mats. **138**

Flexo Mfg. Co., Inc., 35 Howard St., New York, N. Y. Raised letter printing machines and powders.

Flint Ink Co., Howard, Clark Ave., and M.C.R.R., Detroit, Mich. All kinds of printing inks. **141**

Foley Mfg. Co., 11-15 Main St., N.E., Minneapolis, Minn. Mfrs. of saw sharpeners.

Force & Co., Wm. A., 105 Worth St., New York, N. Y. Mfrs. of numbering machines. Distributor of stamps and supplies.

Fort Hill Engraving Co., 113 Pearl St., Boston, Mass. Tools.

Foxboro Co., The, School St., Foxboro, Mass. Air and paper conditioning equipment.

Fox River Paper Co., Appleton, Wis. Bond, ledger and cover papers.

Frank, F., 3017 W. Carroll Ave., Chicago, Ill. Dealer in machinery, tools and supplies.

Franklin Paper Co., Holyoke, Mass. Bristols and blanks.

Fraser Paper, Ltd., Madawaska, Me. Bond, ledger and safety papers; paper specialties.

Fuchs & Lang Mfg. Co., See General Printing Ink Corp.

*Fuller, E. C., Co., 28 Reade St., New York, N. Y. Dealers in bookbinding, ruling machinery and tape moisteners.

Fuller Co., H. B., 186-190 W. Kellogg Blvd., St. Paul, Minn. Binders' glue and specialty pastes.

G

Gelb Co., Joseph, 250 W. 54th St., New York, N. Y. Photo-engravers' equipment and supplies.

Galland-Henning Mfg. Co., 2753 S. 31st Ave., Milwaukee, Wis. Baling presses and ties.

Gane Bros. & Lane, Inc., 1335 W. Lake St., Chicago, Ill. Dealers in bookbinders' supplies. Embosser mfrd. for them.

Gardiner Metal Co., 2514 W. 48th Pl., Chicago, Ill. Metals, metal cleaners and fluxes.

Garrett-Buchanan Co., Inc., 18 S. Sixth St., Philadelphia, Pa. Stereotypers' machinery, accessories and supplies.

Gay Bros. Co., 45 E. 17th St., New York, N. Y. Lithographic and offset rollers.

*Gegenheimer, Inc., Wm., 78 Roebling St., Brooklyn, N. Y. Mfrs. of Baldwin press washers. Rebuilders of lithograph machinery. Dealers in new and used machinery.

Gelb Co., Joseph, 250 W. 54th St., New York, N. Y. Mfrs. and dealers in photo-engraving machinery.

General Electric Co., 1 River Rd., Schenectady, N. Y. Printing machinery motors and equipment. **80-81**

General Printing Ink Corp., 100 Sixth Ave., New York, N. Y. Printing inks, offset and lithographic equipment and supplies.

General Printing Machinery Corp. See Mergenthaler Linotype Co.

General Tire & Rubber Co., Akron, O. Printers' rubber rollers, cutting rubbers and blankets.

Gerrard Co., Inc., The, 2915 W. 47th St., Chicago, Ill. Newspaper bundling and tying machines.

Gibbs-Brower Co., Inc., 401 Broadway, New York, N. Y. Dealers in printing machinery and paper and pulp mills.

Gilbert Paper Co., Menasha, Wis. Bond, cover, ledger, safety and writing papers, bristols.

Gilmer Co., L. H., Cottman & Keystone, Philadelphia, Pa. Tape moisteners.

Gimmel Bros., Inc., 19 Second St., San Francisco, Calif. Dealers in printing machinery and equipment.

Gitzendanner-Muller Co., Inc., 15 Vandewater St., New York, N. Y. Mfrs. of wire stitchers.

Globe Printers Roller Co., Inc., 154 Purchase St., Boston, Mass. Composition and rubber rollers, padding compounds and make-ready paste.

Globe Type Foundry, Inc., 320 S. Jefferson St., Chicago, Ill. Mfrs. of type and supplies. Dealers in new machinery.

Globe-Wernicke Co., The, Cincinnati, O. Office furniture and filing equipment.

Glogau & Co., 536-38 S. Clark St., Chicago, Ill. Magnifying and reducing glasses.

Godfrey Roller Co., 211-15 N. Camac St., Philadelphia, Pa. Composition and rubber rollers; padding compound and rubber roller grinding for the trade. **144**

Goerz American Optical Co., Inc., C. P., 317 E. 34th St., New York, N. Y. Cameras, magnifying and reducing glasses.

Goggin, Joe, 1751 N. LeClaire Ave., Chicago, Ill. Manual of stereotyping **147**

Goodrich Rubber Co., B. F., Akron, O. Mfrs. of rubber rollers and blankets. **7**

Goodyear Tire & Rubber Co., Inc., The, Akron, O. Lithographic rubber rollers and blankets; newspaper rubber rollers and blankets, cutting rubbers and felt blankets.

*Gorton, Clifford W., 48 Smith St., West Haven, Conn. Dealer in new and used machinery, type, metal chases, galleys, mitering machines, cutters, stitchers, etc.

Goss Printing Press Co., 1535 S. Paulina St., Chicago, Ill. Mfrs. of newspaper printing presses and stereotype machinery ..... **Inside front cover—1**

Gowdy Mfg. Co., Inc., 45 N. Division St., Buffalo, N. Y. Mfrs. of automatic envelope machine, imprinting attachment, and counter by others.

Grammes Sons, Inc., L. F., 344 Union Ave., Allentown, Pa. Printing presses, tin mounting machines and strips, etc.

Graphic Arts Laboratories, 186 W. Lake St., Chicago, Ill. Overlays.

*Graphic Arts Machine Agency, 12 Wooster St., New York, N. Y. Dealers in blankets and mats.

Graton & Knight Co., 356 Franklin St., Worcester, Mass. Belting.

Grauert, Inc., R. W., 66 W. Broadway, New York, N. Y. Foils.

Gravure Machinery & Appliance Co., Bound Brook, N. J. Rotogravure equipment and supplies.

Green's Paste Works, 2912 S. Salina St., Syracuse, N. Y. Padding compound and specialty glues.

Griffin, Campbell, Hayes & Walsh, Inc., 50 E. 21st St., New York, N. Y. Foils and roll leaf feeders.

*Griffiths Co., Inc., John, 145 Nassau St., New York, N. Y. Dealers in used machinery for newspaper and magazine job offices.

Griswold, William, 122 Front St., San Francisco, Calif. Leads, rules; punches, scorers, creasers and perforators.

Grove Co., Jacob R., 3708 Fulton St., N.W., Washington, D. C. Mfrs. of gauge pins and grippers.

Gutmann & Co., 1511 Webster Ave., Chicago, Ill. Bookbinding materials.

H

Hackensack Specialty Mfg. Co., 200 Atlantic Ave., Hackensack, N. J. Tools.

*Hacker Mfg. Co., 320 S. Honore St., Chicago, Ill. Mfrs. of test presses and block levelers.

*Hall Co., Norman F., 167 First St., San Francisco, Calif. Dealer in supplies and wholesale paper.

*Hall Co., Thomas W., Melrose Ave., Stamford, Conn. Mfrs. and dealers in make-up tables.

Haloid Co., The, 6 Haloid St., Rochester, N. Y. Plate making films, photo-engravers' equipment and supplies.

*Hamilton Mfg. Co., 1315 18th St., Two Rivers, Wis. Mfrs. of composing room furniture, wood type, cabinets, cases, work benches, etc.

Hammer Dry Plate Co., 3547 Ohio Ave., St Louis, Mo. Plate making, film and negative materials.

Hammermill Paper Co., Erie, Pa. Bond, cover, ledger, offset, safety and writing papers; bristols.

*Hammond Machinery Builders, Inc., 1600 N. Douglas Ave., Kalamazoo, Mich. Mfrs. of saw-trimmers, mat rollers, routers, planers and casting boxes.

Hampton-Auld, Inc., 104-106 Verona Ave., Newark, N. J. Letterpress inks; ink specialties; varnishes and driers; gold and silver inks, body gum, anti-offset compound and type cleaner.

Hansen, H. Alfred, 184 Summer St., Boston, Mass. Mfr. of brass specialties. Dealer in supplies.

Harbro Chemical Co., 305 E. Border St., East Boston, Mass. Raised letter printing machines and powders.

Hardy, F. A., 10 S. Wabash Ave., Chicago, Ill. Magnifying and reducing glasses.

***Harris-Seybold-Potter Co., 4510 E. 71st St., Cleveland, O. Mfrs. of offset, typographical, gravure presses; cutters, trimmers, knife grinders, drills, perforators, wire stitchers, embossers, die presses, punches, etc.** **88-89**

Hart Mfg. Co., R. A., 19 Wilson Court, Battle Creek, Mich. Mfrs. of press counters, roller racks and press joggers.

Hart Co., Inc., William C., 137 Greene St., New York, N. Y., Printers' rollers, ball bearing roller cores, covered rollers, specialty glues and paste. **130**

Hartnett Co., R. W., 1025 Cherry St., Philadelphia, Pa. Dealer in presses, binding machinery and supplies. Repairer and manufacturer of small machinery.

Hastings & Co., 817 Filbert St., Philadelphia, Pa. Foils.

Hawkins-Wilson Co., Inc., 716 Sansom St., Philadelphia, Pa. Mfrs. of steel die embossing; presses and feeders.

Hawthorne Paper Co., Kalamazoo, Mich. Bond, ledger, offset and specialty papers.

*Haywood Co., C. B., 431 N. W. Glisan St., Portland, Ore. Mfrs. of brakes, trucks, etc. Dealers in machinery and parts. Machine shop and repairs.

***Heidelberg Printing Machinery Corp., 228 E. 45th St., New York, N. Y. Dealers and importers of printing machines and sheet fed presses.** **61**

Heinrich, Inc., H. H., 200 Varick St., New York, N. Y. Rubber plate-making equipment; paper bag machinery; aniline and multi-color specialty presses.

*Heinsohn, A. E., 1441 Blake St., Denver, Colo. Dealer in machinery supplies, ink and varnish; mfrs. of press parts.

Hellmuth, Inc., Charles, 154 W. 18th St., New York, N. Y. Letterpress, lithographic and offset inks.

Helmold & Bro., Inc., J. F., 1462 Custer St., Chicago, Ill. Rule benders and cutters; perforating, cutting and creasing rule; round hole punches.

Hempel, H. A., 55 Baynes St., Buffalo, N. Y. Mfrs. of quoins and keys.

Henningan Co., Inc., J. D., 551 Fulton St., Chicago, Ill. Dealers in new, used and rebuilt machinery.

Henschel Mfg. Co., C. B., 229 W. Mineral St., Milwaukee, Wis. Dealers in imported bronzing machines and equipment. Mfrs. of cigar boxes and labels. Finisher of litho. trade. **147**

Herrick Ink Co., Wm. C., 325 W. 34th St., New York, N. Y. Mfrs. of printing inks. **150**

Herrick & Cowell Co., The, 39 Artizan St., New Haven, Conn. Mfrs. of paper box machinery. Machinists.

Hess Co., A., 225 W. 34th St., New York, N. Y. Dealers in photo litho and photo-engraving machinery.

Hewitt & Bros., Inc., C. B., 23 Greene St., New York, N. Y. Flexible, tag, felt and special papers; glues for all purposes.

Hickok Mfg. Co., W. O., 9th and Cumberland Sts., Harrisburg, Pa. Mfrs. of knife grinders, shears, paper presses, numbering machines, backers, heaters, stabbing machines, tables, feeders, benches, ruling machines, etc.

Hiertz Metal Co., Inc., Theo., 8011 Alaska Ave., St. Louis, Mo. Metals and fluxes.

Hill-Hentschel Co., 301 South Vandeventer Ave., St. Louis, Mo. Letterpress, litho and offset inks, varnish and driers.

Hilo Varnish Corporation, Stewart Ave., Brooklyn, N. Y. Varnish.

Hobbs Mfg. Co., 26 Salisbury St., Worchester, Mass. Carton makers' machinery, shears, die cutting presses, slitting and rewinding machinery; trucks.

Hoe & Co., R., 138th St. and East River, New York, N. Y. Mfrs. of newspaper printing presses, stereotype machinery, etc. **84-85**

Hoerth & Co., A. J., 608 S. Dearborn St., Chicago, Ill Line-up tables, plate mounting equipment.

Hoff, Leslie D., 52 N. Arlington Ave., East Orange, N. J. Mfrs. of combination slitter, scorer and perforator for cylinder presses.

Hoke Engraving Plate Co., 1024 Park Ave., St. Louis, Mo. Chalk plates, gravers and chalk plate accessories.

Hollingsworth Machine Co., William, 227-229 Holliday St., Baltimore, Md. Bookbinding, bronzing, gluing, gumming and labeling machinery, feeders and photo. engravers' equipment **116**

*Holmstrom, Axel, Drexel Bldg., Philadelphia, Pa. Mfr. and dealer in etching machines manufactured by others.

Holyoke Card & Paper Co., Springfield, Mass. Cover papers, cardboard and coated specialties.

*Hood-Falco Corp., 225 Varick St., New York, N. Y. Dealer in used machinery and equipment.

Hoole Machine & Engraving Works, Inc., 30 Main St., Brooklyn, N. Y. Mfrs. of numbering machine for bookbinders—does engraving on brass and other metals.

Hooper Co., Inc., F. X., Glenarm, Md. Carton and wood box printing presses.

Horn Co., Inc., A. C., 43 Tenth St., Long Island City, N. Y. Litho-offset inks, varnish.

Horton Mfg. Co., 3016 University Ave., S. E., Minneapolis, Minn. Variable speed printing press pulleys.

Hotchkiss Sales Co., The, 10 Hoyt St., Norwalk, Conn. Stitchers and staplers.

House & Sons, Inc., C. W., 505 Fifth Ave., New York, N. Y. Tape moisteners.

Howard Paper Co., Urbana, O. Bond and ledger papers.

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For Telephone Book Presses

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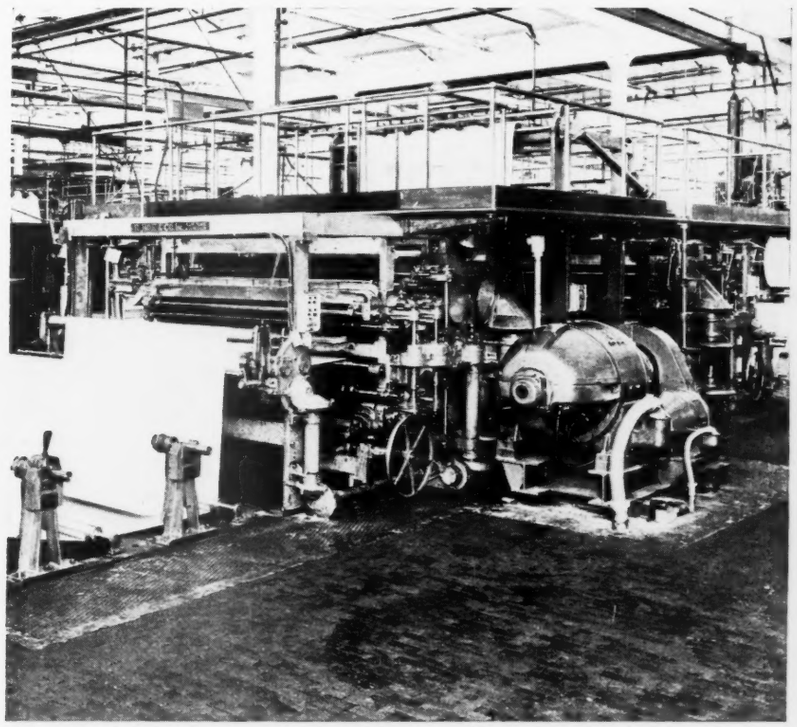
BALL AND ROLLER BEARINGS 3486



SKF-EQUIPPED BUILT BY R. HOE & CO., INC.

Speeds "more than 50% in excess of previous speeds for this type of press" mean nothing to this New Hoe Super-Production Telephone Book Press. Every day it leaves old press records in its wake, for its press frames are solid steel with solid steel plate and impression cylinders running in SKF Bearings.

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SKF accomplishments in the printing field are history. For years SKF Bearings have been standing up under good printing at from 40,000 to 65,000 thirty-two page newspapers an hour. They bring press performance up to 1935 standards.

SKF INDUSTRIES, INC., FRONT ST. & ERIE AVE., PHILA., PA.

NEWS & COMIC

Ten million families depend on the country's publishers for clean, clearly printed newspapers. They take the ink for granted and yet the whole editorial program and the advertising power of the newspaper translates itself to the reader through this "unseen" factor of ink. IPI's contribution in the field of web press inks is acknowledged in the industry—exceptional coverage, a minimum of rubbing, a maximum of sharpness, dense blacks, vivid, strong and smooth colors.

PROCESS PRINTING

The modern achievements of color photography and photoengraving have translated printers' visions and wishes into illuminated realities. Process Ink engineering must scientifically select subtractive primary hues, and insure the practical performance of varnishes, driers and pigments. "COLOR SELLS!"—but "the high attention value of color lays a mediocre color page open to keener criticism than a poor black and white reproduction."

No field of printing raises greater scientific, technical and practical problems than Offset and Lithography. Paper and moisture factors, climatic conditions and the chemistry of inks on the running press are peculiar to these processes. Scientifically controlled supplies plus practical ink service through IPI Offset Research Laboratories carries through every phase of its Offset and Litho products—inks—blankets—plates—etches.

OFFSET & LITHO

Beyond the dreams of the first package merchandiser, carton and container printing has reached stupendous proportions. Ink requirements have grown apace. COLOR—lots of it; GLOSS—without sticking; SPEED in printing one, two or even four colors at a time. Inks to withstand Fading, Alkali, Acids, Rubbing, Scratching. Inks which impart no odors to food. Inks for Metal or Rubber plates; Inks for Gloss or Matte finish; Inks for Instantaneous, Quick or Normal drying—Inks proven by Research!

CARTON & CONTAINER

INDUSTRIAL FINISHES

Style, the dictator of many industrial finishes from aluminum coated bridges to red, green and blue playthings, must bow to the laboratory. Problems such as moisture—blooming—staining — drying — high temperature baking must be solved. Will the proposed finish stand up against wind—weather—against ruthless treatment—or the attack of some special chemical action? Ault & Wiborg laboratories, the oldest in the industry, are perhaps the newest in equipment.

INTAGLIO & GRAVURE

"Rotogravure Now In Media Limelight With Increasing Linage Upturn."—From the Editor & Publisher, October 5, 1935 issue. The use of Gravure has increased astonishingly during the Depression! Modern research made this possible. It has anticipated and met the needs of gravure printing throughout the development of this process. Today "In-Tag" is the standard of quality in monotone gravure and in the rapidly expanding field of color gravure.

Pigments mixed with oils do not make artists' colors. Opacity and transparency must meet physical specifications. White must be spectrophotometrically White. Rux · tone Colors, developed through years of color making, embody only carefully selected ingredients for Artists' Oil, Water, Tempera and Poster Colors. This accounts for their exceptional brilliance and consequent economy. They are built to serve the artist who appreciates materials which give full play to his creative ability.

ARTIST COLORS

Pressroom conditions change—plate imperfections occur, but jobs must be turned out. IPI Pressroom Service has a background of wide experience. IPI Driers, Compounds and Pressroom Equipment are the results of research and embody recently discovered chemicals and principles to overcome specific problems. For example, spraying to eliminate offset is best accomplished by a new device—SprayOmatic —distributed exclusively by IPI.

PRESSROOM SERVICE

Hoy Offset and Static Eliminator Co., 139 E. 3rd St., Cincinnati, O. Mfrs. of offset and static eliminators.
Hoyt Co., Inc., Arthur S., 175 Fifth Ave., New York, N. Y. Dry paste.
Huber, Inc., J. M., 460 W. 34th St., New York, N. Y. News print, letterpress and litho. inks, driers, compounds and specialties.....29
Hudson-Sharpe Machine Co., Inc., 1207 Main St., Green Bay, Wis. Mfrs. of crepe machines, napkin folders, collapsible reels, bundling and bailing machines.
*Huebner Laboratories, 202 E. 44th St., New York, N. Y. Dealers in offset plate making machinery, cameras, presses and processors.
Hughes Loose Leaf Metals Co., 544 W. Lake St., Chicago, Ill. Metal parts for loose leaf binding.
Hughes Machine Co., 44 Beauvoir St., Summit, N. J. Check printing press.
Hurlbut Paper Co., South Lee, Mass. Bond, cover, ledger writing, book and specialty papers.
Huston, David, Plainfield, N. J. Stereotypers' machinery, accessories and supplies.
Hyman, Frank W. See Rotogravure Eng. Corp.

I

Ideal Roller & Mfg. Co., 2512 W. 24th St., Chicago, Ill; 22nd St. and 39th Ave., Long Island City, N. Y. Ideal Process rubber and lithographic rollers, rubber tanning rollers, specialty rubber rollers, lithographic press blankets, negative film holders; especially designed rollers.....28
Ideal Stitcher & Mfg. Co. See Christensen Machinery Co.
Illinois Stamping & Mfg. Co., 220 N. Jefferson St., Chicago, Ill. Galleys.
Illinois Testing Laboratories, Inc., 141 W. Austin Ave., Chicago, Ill. Portable and stationary pyrometers, anemometers and thermometers.....144
Imperial Type Metal Co., Chicago, New York, Philadelphia. Los Angeles. Composing, stereotype and electrotype metals, metal flux and composing machinery mold polish.....31
Imprint Matrix Co., Moravian Falls, N. C. Composing machine special matrices to order.
Improved Boehner Binder Co., 111 Fox St., Aurora, Ill. Roll gold stamping and embossing machines.
Independent Electric Machinery Co., 300 Southwest Blvd., Kansas City, Mo. Linotype and Monotype electric metal pots and heating units.
Independent Paper Cutter Co., 704 N. Main St., St. Louis, Mo. Cutting machines.
Indiana Chemical & Mfg. Co., 23 E. 26th St., New York, N. Y. Ink compounds, type wash and metal cleaners.
Inland Empire Paper Co., Milwood, Wash. Book, newsprint, poster and writing papers.
Inman Mfg. Co., Inc., 51 Guy Park Ave., Amsterdam, N.Y. Tray and setting up machines for printing and forming paper boxes.
Innis, Speiden & Co., Inc., 117 Liberty St., New York, N.Y. Adhesives.
Interlaken Mills, 18 Thomas St., New York, N. Y. Bookbinding materilas.
International Intaglio Corp., 45 W. 45th St., New York, N Y. Importers of machinery and supplies.
International Paper Co., 220 E. 42nd St., New York, N. Y. Bond, book, cover, ledger, manila, newsprint, offset, poster, and rotogravure paper.
International Paper Box Mach. Co., 315 Main St., Nashua, N. H. Mfrs. of printing machine and rapid folding box machine.
International Press Cleaner & Mfg. Co.. Inc., 1265 W. 2nd St., Cleveland O. Mfrs. of press cleaner and dampening device for litho. presses.
International Printing Ink Corp., New York, N. Y. Mfrs. of printing inks.....72-73
International Time Recording Co. of N. Y., Inc., 270 Broadway, New York, N. Y. Time clocks, recorders and stamps.
Interstate Machinery Co., 3104 7th Ave., Troy, N. Y. Cutting machines.
***Intertype Corp., 360 Furman St., Brooklyn, N. Y. Mfrs. of Intertype composing machines, matrices, parts, supplies and accessories.....Back cover**

J

Jacques & Son, John, 93 Webster St., Worchester, Mass. Mfrs. of shears for bookbinders and printers; fine card cutting machine, slitting, shade cutting and creasing machinery.
Jampol Co., The, 11 Park Place, Park Murray Bldg., New York, N. Y. Newspaper plant material handling equipment.
*Jennings Hillory, 619 N. Beech St., Little Rock, Ark. Dealer in Babcock presses.
Johnson & Co., Chas. Enue, 10th & Lombard Sts., Philadelphia, Pa. Inks. varnishes and driers.
Johnson Co., Inc., Wm. R., 72 Columbia St., Seattle, Wash. Padding compounds and glue.
Johnson-King Co., 709 W. 49th Place, Chicago, Ill. Letterpress, lithographic, offset, rotogravure, copper plate and steel die inks, varnishes and driers.
Johnson Perfection Burner Co., See J. E. Doyle Co.
Johnson Photo Litho Co., 318 W. Randolph St., Chicago, Ill. Plate graining machines.
Johnstone Electric Co., Inc., 536 S. Clark St., Chicago, Ill. Mfrs. and dealers in photo engravers' machinery and supplies.
Jones, J. H., 430 S. Green St., Chicago, Ill. Machinist.
Jorson & Carlson Co., Inc., 707 S. Dearborn St., Chicago, Ill. Knife grinders, cutting sticks and knives.
Joslin Mfg. Co., A. D., Manistee, Mich. Time clocks, recorders and stamps.
Judson Type, Inc., 119 W. 23rd St., New York, N. Y. Mfrs. of rules, borders and display type.
Jurgs & Beall Vertical Service Co. See Vertical Service Co.
Justrite Mfg. Co., 2085 Southport Ave., Chicago, Ill. Waste and safety cans.....151

K

Kalamazoo Paper Co., Kalamazoo, Mich. Book, litho, offset ans specialty papers.
Kalamazoo Vegetable Parchment Co., Parchment, Mich. Parchment paper.
Kastens Co., Henry, 418 W. 27th St., New York, N. Y. Time stamps.
Kavinor Automatic Press Co., 23 Duane St., New York, N. Y. Printing presses.
Kellett Co., 501 S. Dearborn St., Chicago, Ill. Knife grinders.
Kelsey Press Co., The, 62 Colony St., Meriden, Conn. Mfrs. of small hand printing press, paper cutters and type.
Kemp Co., W. H., 350 Hudson St., New York, N. Y. Foils.
Kemp Mfg. Co., The, C. M., 405 E. Oliver St., Baltimore, Md. Gas heating equipment for composing and stereotype machinery and remelting pots.....116-A
Kemper, R. E., North Chatham, N. Y. Mfrs. of type-hi gauge.
Kent Machine Works, 37 Gold St., Brooklyn, N. Y. Ink mixing equipment.
Keratol Co., Inc., The, 348 Van Buren St., Newark, N. J. Bookbinding materials.
Keystone Rubber Co., Inc., 180 N. Wacker Dr., Chicago, Ill. Rubber trouble eliminators, Mfrs. of keyboard rolls.
Kidder Press Co., See U. P. M.-Kidder Co.....132
Kienle & Co., 33-47 Nassau Ave., Brooklyn, N. Y. Letterpress, lithographic and offset inks.
Kienzle & Merrick Mfg. Co., The, 1212 S. 3rd St., Minneapolis, Minn. Mfrs. of Tufford cylinder press.
Kimberly-Clark Corp., Neenah, Wis. Coated Papers.
Kimble Electric Co., See Miehle Printing Press & Mfg. Co.
Klean-O-Mat Co., 21 West St., New York, N. Y. Line-casting matrix and magazine cleaning equipment.....69
Knowlton Co., M. D., 28 Industrial St., Rochester, N. Y. Heaters and neutralizers for printing presses, glue heaters and pots, gluing, labeling, scoring, creasing, paraffining and waxing machines.
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Korn, Inc., Wm., 120 Centre St., New York, N. Y. Lithographic, transfer ink and specialties.
Krasilovsky & Bros., Inc., S., 216 Centre St., New York, N. Y. Printing plant machinery mover.....151
Krause-U. S. Corp., Karl, 55-57 Van Dam St., New York, N. Y. Importers of printing machinery, knotting, looping, thread stitching and stringing machines.131
Kwikprint Co., 605 West Washington St., Chicago, Ill. Pallet and plate presses.

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Lake Erie Stereotype Equipment Co., Kenmore Sta., Buffalo, N. Y. Hydraulic matrix press and plate milling machine.....34
La Motte Chemical Products Co., 438 Light St., Baltimore, Md. Plate making chemicals and supplies.
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Linograph Corp., 107 Scott St., Davenport, Ia. Mfrs. of line-casting machinery, supplies, parts and accessories.
Linotype Parts Corp., 203 Lafayette St., New York, N. Y. Mfrs. of composing machine supplies, parts and accessories.....127
Linotype Supply Co., 86 Walker St., New York, N. Y. Dealers in composing machine parts.
Linotypers' Supply Co., 13 Custom House St., Boston, Mass. Dealers in linotype parts and supplies. Repair and rebuild machinery.
Litho Chemical & Supply Co., 63 Park Row, New York, N. Y. Photo-engravers' supplies.
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M

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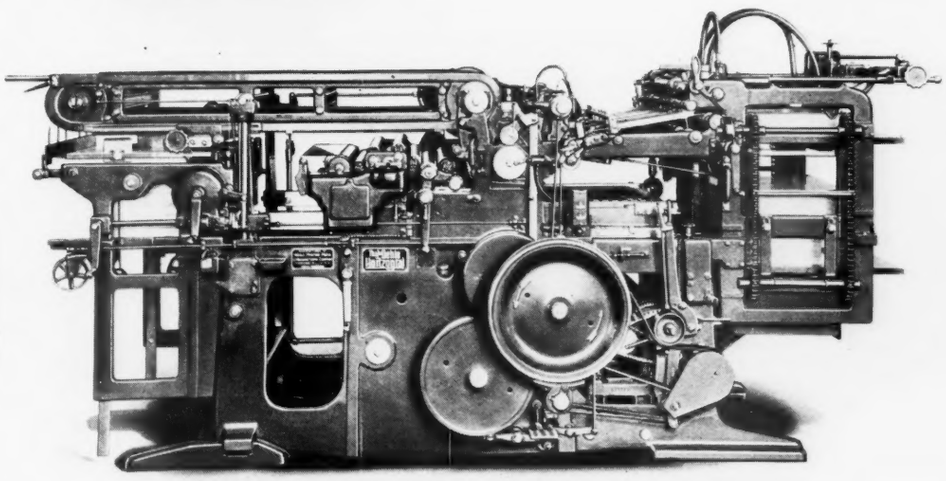

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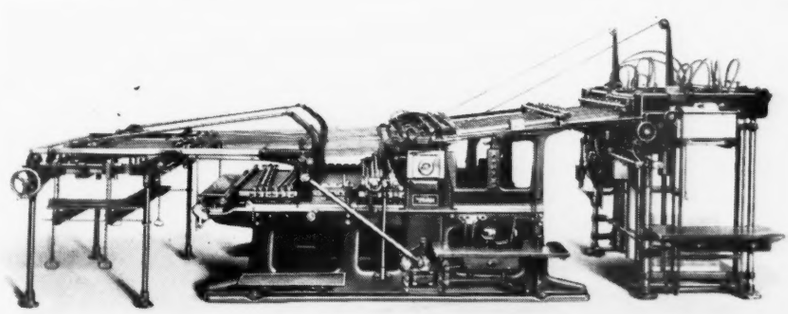

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Printers Supply Co., Inc., 718 Marquette St., Racine, Wis. Wire stitching machine.
*Printers Supply Corp., 340 E. 3rd St., Los Angeles, Calif. Dealers in machinery and supplies. Printers' machinists.
Printers Supply Service, 719 S. Dearborn St., Chicago, Ill. Dealers in printers' supplies.
Printers Trading Post, 606 Broadway, Kansas City, Mo. Printers supplies.

***Printing Machinery Co., The, 436 Commercial Sq., Cincinnati, O. Mfrs. of bases, rotary and offset presses; diagonal blocks; furniture and Sterling systems.....83**

Printing Press Extension Delivery Co., 447 W. 40th St., New York, N. Y. Mfrs. of extension deliveries for rotary presses, also wax sprayer and automatic gas heater.

***Printing Press Parts & Supplies, Inc., 225 High St., Boston, Mass. Tag patching machine, static eliminators, heaters and sundries.....108**

Probert Typesetting Co., 211 S. Ludlow St., Dayton, O. Matrix reference cleaner for intertypes and linotypes.
Process Rubber Plate Co., 610 W. Van Buren St., Chicago, Ill. Rubber printing plate making material.
Production Instrument Co., 1315 S. Wabash Ave., Chicago, Ill. Electric, mechanical and totalizing counters.

Q

Queen City Linotyping Co., Inc., 164 Ellicott St., Buffalo, N. Y. Leads and rules.

R

Rader, Earl D., 420 Lexington Ave., New York, N. Y. Patent attorney.....132

Rapid Roller Co., Federal at 26th, Chicago, Ill. Canvas covered, composition, rotogravure and rubber rollers.
Rathbun & Bird, Inc., 85 Grand St., New York, N. Y. Rebuilt machinery. Printers' machinists.
Rauskalb Co., F. W., 160 Franklin St., Medford, Mass. Foils.
Reading Paper Mills, Inc., Canal and Pine Sts., Reading, Pa. Bond, book, cover, ledger, offset and specialty papers.
Read Machinery Co., Inc., York, Pa. Mfrs. of ink mixers and blenders.
Redington Co., F. B., 112 S. Sangamon St., Chicago, Ill. Mfrs. of counting machines.
Reed Roller & Supply Co., Inc., 415-417 Jackson St., San Francisco, Calif. Composition rollers, electrotypers' and stereotypers' equipment and supplies.
Reeves Pulley Co., Columbus, Ind. Drives and variable speed pulleys.

Reid & Co., William, 537 S. LaSalle St., Chicago, Ill. Dealers in machinery and tools; printers' machinists.151

Reid Bros. Co., Inc., 140 Elliott St., Beverly, Mass. Mfrs. of replacement parts for linotypes.....129

Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland, O. Motor drives.
Reliance Machine Works, 1913 N. 83rd St., Wauwatosa, Wis. Mfrs. of counting machines.
Reliance Printing Equipment Co., 357 Bangor Bldg., Cleveland, O. Mfrs. of special equipment and supplies.
Remington-Rand, Inc., 465 Washington St., Buffalo, N. Y. Cabinets, cases, racks and stands.
Renz & Son, Fred, Glendale, L. I. Mfrs. of paper ruling machines and accessories.
*Repro-Art Machinery Co. See Max Levy & Co.
Republic Engraving & Designing Co., 311 N. Desplaines St., Chicago, Ill. Composition blocks and rubber printing plate making materials.
Revolvator Co., 340 Garfield Ave., Jersey City, N. J. Portable elevator, lift trucks and storage racks.
Reynolds Metals Co., 19 Rector St., New York, N. Y. Metal foil papers and paper board; aluminum bronze powders.
Rex Metal Works, 117 Spokane St., Seattle, Wash. Composing machine and stereotype metals.
Rhinelander Paper Co., Inc., Rhinelander, Wis. Parchment paper.
Rhoads, L. A., 621 Rush St., Fremont, O. Roller bearers, frames, trucks, etc.
Rhoads & Sons, J. E., 35 N. Sixth St., Philadelphia, Pa. Flat and round leather belting and supplies.
Rice, Barton & Fales, Inc., 65 Taintor St., Worcester, Mass. Gluing and labeling machines.
Rich & McLean, Frankford St., New York, N. Y. Mfrs. of linotype specialties, magazines, molds and liners.
Richards Co., Inc., 377 Commercial, Boston, Mass. Metals and fluxes.
*Richards Co., J. A., 903 N. Pitcher St., Kalamazoo, Mich. Mfrs. of saws, tables, benders, creasers, etc. Paper box machinery, cutting forms and dies.
Riebe Quoin Co., The, 122 N. Lamon Ave., Chicago, Ill. Mfrs. of quoins.
Riegel Paper Corp., 342 Madison Ave., New York, N. Y. Tympan and specialty papers.
Rivett Lathe & Grinder, Inc., 2 Brooks St., Brighton, Mass. Lathes, grinders and lubricating systems.
Robbins & Myers Co., Springfield, O. Motor drives.
Roberts, Lewis, Inc., 72 Union St., Newark, N. J. Letterpress, lithographic, offset and water color inks; varnishes and driers.
Roberts Numbering Machine Co., 694 Jamaica Ave., Brooklyn, N. Y. Mfrs. of numbering and dating machines and pencil pointers.
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y. Plate making equipment and supplies.
*Robertson, R. R., 400 W. Madison St., Chicago, Ill. Mfrs. of cameras and equipment; photo-engraving and newspaper machinery.
Robinson Co., John T., Hyde Park, Mass. Card, board and lithographic cutting, scoring and creasing machines

Rockaway Co., The, 5409 W. Vliet St., Milwaukee, Wis. Spaceband cleaning machine.....79

Rockwood Mfg. Co., 1801 English Ave., Indianapolis, Ind. Speed regulating pulleys and drives.
Rogers & Co., Inc., Samuel C., 191 Dutton Ave., Buffalo, N. Y. Mfrs. of grinding machines.
Rogers Isinglass & Glue Co., Gloucester, Mass. Photo-engraving glue and top enamel.

Rolled Plate Metal Co., 196-210 Van Brunt St., Brooklyn, N. Y. Alloy, copper and zinc plates for photo-engraving.....133

Roosen Co., H. D., 78 20th St., Brooklyn, N. Y. Letterpress, lithographic and rotogravure inks; varnishes and driers.
Roovers Bros., 3611 14th Ave., Brooklyn, N. Y. Pallet and plate presses.
*Rosback Co., F. P., Box 675, Benton Harbor, Mich. Mfrs. of perforator, wire stitcher, punching and bookbinding machines.
Ross & Son Co., Inc., Charles, 148 Classon Ave., Brooklyn, N. Y. Ink mixing equipment.
Rotogravure Engineering Corp., 175 5th Ave., New York, N. Y. Mfrs. of rotogravure presses.

***Rouse & Co., H. B., 2214 Ward St., Chicago, Ill. Mfrs. of band saws, cutters, miterers, composing sticks, paper lifts, conveyors, etc.....25**

Royle & Sons, John, Straight & Essex Sts., Paterson, N. J. Mfrs. of photo-engravers' and electrotypers' equipment and supplies.
Rubberprint Equipment Corp., 200 Varick St., New York, N. Y. Rubber plate making machines and supplies.
Rulex Type Corp., 549 S. Well St., Chicago, Ill. Type founders.

Russell Products Co., 810 Sansom St., Philadelphia, Pa. Stereotype and electrotype supplies.....149

Russia Cement Co., Gloucester, Mass. Adhesives.
Rutherford Machinery Co., Inc., 100 Sixth Ave., New York, N. Y. Mfrs. of presses and other machinery Division of General Printing Ink Corp.
*Ryan, Joseph A., 8911 W. Chester Pike, Philadelphia, Pa. Dealer in used machinery.

S

Safety Electric Heater Co., Faribault, Minn. Heaters and neutralizers for printing presses.
Safety Equipment Service Co., The, 1228 St. Clair Ave., Cleveland, O. Magnifying and reducing glasses.
Sandberg Manufacturing Co., 1949 Fulton St., Chicago, Ill. Photo-engravers' equipment and supplies.

***Sandblom Steel Chase Co., 426 S. Clinton St., Chicago, Ill. Mfrs. of chases.....148**

Sands-Hesse Co., 2476 E. 13th St., Cleveland, O. Printers' rollers.....151

Sanlin Offset Press Mfg. Corp., 38 E. 29th St., New York, N. Y. Printing presses.
Saranac Machine Co., 376 W. Main St., Benton Harbor, Mich. Stitching, cutting, paraffining and waxing machines and printing presses.

***Schroeter & Bro., J. H., 223 Central Ave., Atlanta, Ga. Dealers in cutters, chases and bookbinders' job backers, new and used printing machinery.....150**

Schwarm & Jacobus Co., The, 1216-1226 Jackson St., Cincinnati, O. Inks.
Schwenson Co., Inc., L. C., 268 41st St., Brooklyn, N. Y. Dealers in gluing and gumming machines.
Scott-Bansbach Machinery Co., 4607-11 W. 20th St., Chicago, Ill. Sawing and trimming machines.
Scott, Walter, & Co., South Ave., Plainfield, N. J. Mfrs. of color, newspaper, offset and rotogravure presses; cutting and creasing presses and stereotype machinery.
Sebastian Lathe Co., Cincinnati, O. Machine tools, lathes and rubber roller grinding equipment.
Selectasine Patents Co., 558 Sacramento St., San Francisco, Calif. Silk screen process presses.
Sellstrom Manufacturing Co., 344 N. Ogden Ave., Chicago, Ill. Magnifying and reducing glasses.
Seneca Wire & Mfg. Co., The, Fostoria, O. Stitching wire.
Senefelder Co., Inc., The, 32 Greene St., New York, N. Y. Lithographic and letterpress inks; lithographic supplies.
Setter Bros., Inc., Cattaraugus, N. Y., Blocking wood.
Sevigne Machine Co., F. J., 41 Crown St., Nashua, N. H. Fruit, nut and carton printing machines and inks.
Seybold Machine Co., Dayton, O. Cutting machines and knives; knife grinding machines and die-cutting presses.
Shalley Co., The 328 Liberty Ave., Pittsburgh, Pa. Dealer in type, rules, borders and numbering machines.
Sharp Tool Service Co., 5613 W. Lake St., Chicago, Ill. Knife grinders.
Shaw Machine & Tool Co., 1151 Temple St., Los Angeles, Calif. Mfrs. of stereotype machines.
Shawver Co., The, 21 W. Pleasant St., Springfield, O. Oval, circle, square and shear cutting machines.
*Sheridan Co., T. W. & C. B., 135 Lafayette St., New York, N. Y. Mfrs. of embossing presses, cutters, die presses, stitchers, coverers, binders, etc., for bookbinders.
Shore Instrument & Mfg. Co., 90-25 Van Wyck Ave., Jamaica, N. Y. Testing devices.
Showcard Machine Co., 1192 Merchandise Mart, Chicago, Ill. Showcard printing machines and supplies.
Siebold, Inc., J. H. & G. B., 47 Watts St., New York, N. Y. Lithographic supplies.
*Sigourney Tool Co., The. See Smyth Mfg. Co.
Sigwalt Mfg. Co., 2011 N. Lawndale Ave., Chicago, Ill. Mfrs. of platen printing presses and seal presses.
Silvertone Process Corp., 342 Madison Ave., New York, N. Y. Mfrs. of stereotype mats.
Simco Corp., The, P. O. Box No. 5187, Logan, Philadelphia, Pa. Static eliminators.
Simonds Saw & Steel Co., 470 Main St., Fitchburg, Mass. Paper cutter knives, cutting, creasing and perforating rule.

Simonds, Worden, White Co., Dayton, O. Mfrs. of knives.....135

Simplex Electric Heating Co., Boston, Mass. Glue heaters and pots.
Simplex Gold Stamping Press Co., 425 Fourth Ave., New York, N. Y. Gold, color and blank specialty imprinting presses and supplies.
Simplex Time Recorder Co., Gardner, Mass. Job, cost and payroll recorders; time stamps.
Sinclair & Carroll Co., Inc., 591 Eleventh Ave., New York, N. Y. Letterpress, lithographic and offset, water color and metallic inks; driers, compounds and varnishes.
Sinclair & Valentine Co., 11 St. Clair Pl., New York, N. Y. Letterpress, lithographic, offset, rotogravure, water color inks, varnish and driers.

SKF Industries, Inc., Front St. and Erie Ave., Philadelphia, Pa. Ball and roller bearings and transmission appliances.....71

Slade, Hipp & Meloy, Inc., 119 W. Lake St., Chicago, Ill. Metal parts for loose leaf binding.
Slater, H. Robert, Co., 1419 Carrol Ave., Chicago, Ill. Mfrs. of equipment and supplies.
Sleight Metallic Ink Co., Inc., 538 N. Third St., Philadelphia, Pa. Inks.
Smith Co., F. X., 952 E. 93rd St., Brooklyn, N. Y. Mfrs. of chases, quoins, bars, keys and composing room supplies.
Smith & Winchester Mfg. Co., The, South Windham, Conn. Cutting, bag making and printing machines.
*Smyth Co., Joseph E., 343 S. Dearborn St., Chicago, Ill. Mfrs. of bookbinding machines and looping machines.
*Smyth Mfg. Co., The, 9 Sigourney St., Hartford, Conn. Mfrs. of bookbinding machinery.
South Bend Lathe Works, 574 E. Madison St., South Bend, Ind. Lathes, including lathes for rubber roll grinding and polishing.
*Southeastern Printers Supply Co., 267 Trinity Ave., S. W., Atlanta, Ga. Mfrs. of stamp tax presses and perforating attachments. Dealers in new and used presses. Rebuilds and repairs.
*Southworth Machine Co., 30 Warren Ave., Portland, Me. Mfrs. of punches, cornering machines, cutters, joggers and special machinery to order.
Specialty Automatic Machine Co., 200 Boston Ave., Medford, Mass. Mfrs. of special machinery.

Speed Products, Inc., 437 E. 106th St., Cleveland, O. Stereotype scorchers and formers.....134

Spencer Optical Co., Inc., 141 Fulton St., New York, N. Y. Magnifying and reducing glasses.

Spiral Binding Co., 148 Lafayette St., New York, N. Y. Mfrs. of punching and spiral wire machines. Spiral wire binding for books.....118-119

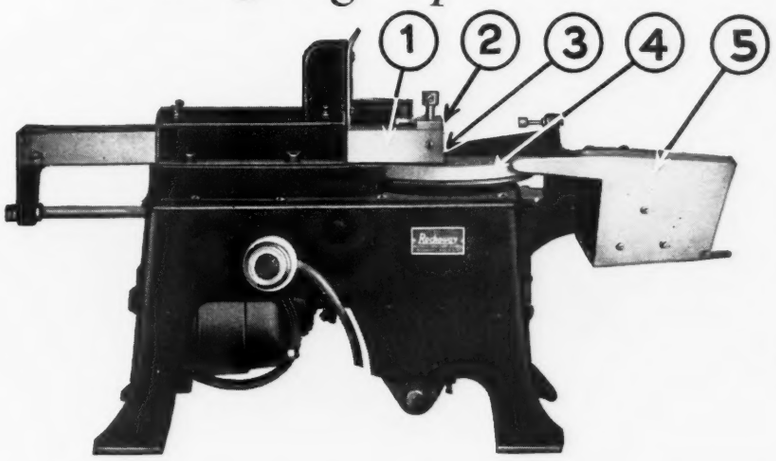
Springman, Chas. T., Grosse Pointe Park, Mich. Cutting rule benders, creasers and cutters.
Square D Co., 710 S. Third St., Milwaukee, Wis. Switches and electrical appliances.

Stahl Newspaper Supply Co., 417 Oregonian Bldg., Portland, Ore. Mfrs. of newspaper mat formers, rotary shavers, bases and stereotype supplies.....4-5-59

Standard Engineering Works, Pawtucket, R. I. Humidifying systems and controls.
Standard Machinery Co., The, Mystic, Conn. Mfrs. of bookbinding machinery and special machinery to order.
Standard Numbering Machine Co., 563 Fairview Ave., Brooklyn, N. Y. Mfrs. of numbering machines.
Standard Paper Box Machinery Co., Inc., 115 Wooster St., New York, N. Y. Carton makers' machinery.
Standard Paper Co., Kalamazoo, Mich. Blanks and bristol papers.
Standard Printing Ink Co., The, 1644 Providence St., Cincinnati, O. Letterpress, lithographic and offset and steel die inks; driers and varnishes.
Standard Process Co., 734 Mather St., Chicago, Ill. Mfrs. of rotogravure presses, grinding machines, transfer machines, and special machinery. Dealers in machinery.
Star Tool Works, Shuey Bldg., Springfield, O. Mfrs. of equipment and supplies.
Staude Mfg. Co., E. G., St. Paul, Minn. Slitting, rewinding, gluing, labeling, numbering, folding and carton makers' machinery.
Sta-Warm Electric Co., Ravenna, O. Electric glue pots and soldering irons.
Steel Products Engineering Co., The, 1060 W. Columbia St., Springfield, O. Printing presses and tools.
Steinhardt Leather Co., 201 McWhorter St., Newark, N. J. Bookbinding materials.
Stephens, Frank H., Co. See General Printing Ink Corp.
Stephens & Wickersham Quoin Co., 174 High St., Boston, Mass. Mfrs. of quoins, etc. Dealers in machinery.
*Stereotype Equipment Co., 3628 Lincoln Ave., Chicago, Ill. Mfrs. of moulding presses, humidors, dryer, etc. Dealers is stereotype supplies.
Stereotype Mfg. Corp., 107 N. Wacker Dr., Chicago, Ill. Stereotype machinery, equipment and supplies.
Sterling Rubber Products Co., The, 115 N. Jefferson St., Dayton, O. Stereotypers' blankets, press cutter rubbers, rubber linotype keyboard rolls and router belts.
Sterling Type Foundry, 67 E. First St., Vermontville, Mich. Mfrs. of type.
Steubing Automatic Machine Co., 2425 Spring Grove St., Cincinnati, O. Tin mounting machines, strips, brass books, etc.
Stevens Co., Chas. N., 112 W. Harrison St., Chicago, Ill. Dealer in machinery.

THE NEW MODEL ROCKAWAY AUTOMATIC SPACEBAND CLEANER

With **5** *Big Improvements*



1 Two feed bars of equal length, to which plunger housing is bolted, giving necessary rigidity.

2 Square plunger housing bolted to both feed bars, adding strength and rigidity. Housing spring exerts 30 lbs. downward pressure on spaceband, insuring more thorough cleaning and polishing, less chance of adherent metal. Added pressure keeps bands true.

3 Band can be placed in machine sleeve up or down without stalling or jamming.

4 Extended feed bar serves as guide band over polishing disc. Bands cannot undercut, guard is eliminated. Bands cannot jam.

5 Clean bands are automatically deposited in assembly box, sleeve down. Bands drop into operator's hand, ready for insertion in typesetting machine without further inspection.

What Users Say

+ SAVES LABOR
Rockford Morning Star Rockford Register-Republic.
June 18, 1934, writes:

It may be of interest to you to know how satisfied we are with the Rockaway Spaceband Cleaner which you installed for us in our composing room several weeks ago. The men in charge of our mechanical department advised me that this equipment not only actually saves considerable labor, but they find a decided improvement in the spacebands themselves through this method of cleaning.

+ PAYS FOR ITSELF
Freeport, Ill., Journal-Standard
May 26, 1934, says:

Thus far we are more than pleased. The Rockaway Spaceband Cleaner not only does the work very well but it has resulted in our being able to use the operators each 15 minutes longer in type setting daily—which in our plant means at least a galley and a half more of type. This increased output will mean that the cleaner will pay for itself in a few months.

The Rockaway Automatic Spaceband Cleaner replaces costly, slow, laborious wasteful hand methods. It removes adherent metals, takes off discolored "danger spots" where spaceband slides meet matrix walls in casting, and sends your spacebands back to work, thoroughly cleaned and properly lubricated.

The Rockaway uses fully approved "hand methods," but is fast, uniform, thorough and safe. Each band passes over a revolving end-grain wood polishing disc. A perforated feed box supplies a steady flow of graphite. Thirty pounds of downward pressure is applied to each band as it passes over the polishing disc. This correct pressure, evenly applied, keeps bands true, free from spring or warping, prolongs their life and makes them work better.

Bands then drop into an assembling box, sleeve down, from which they slide into the operator's hand, ready for insertion in the typesetting machine without further inspection. The machine's quota of 30 bands passes through the cleaner in one minute.

The Rockaway soon pays for itself—in even a small shop—through savings in operator's time (fifteen minutes more each day at the keyboard)—through prolonged life of spacebands, freedom from jamming, and elimination of crushed matrix walls. Each band receives the same amount of attention, the same thorough cleaning without abrasive action. Each wedge and slide is evenly graphited, so that justification springs drive them up without undue resistance when a number of bands are in line. The cleaner handles thin, extra-thick, wide-range and special taper bands with equal ease and speed.

The new model Rockaway Automatic Spaceband Cleaner has five big improvements. Operators and mechanical executives tell us it is the finest spaceband cleaning equipment money can buy. They tell us it saves time, money, materials and turns out the best work they have ever seen. Rockaway economy appeals to owners, because the original machine costs so little, and it runs on light socket current at an average cost of one cent an hour.

Rockaway Automatic Spaceband Cleaners are used throughout the United States and Canada, in Australia, England, Holland, New Zealand, Scotland and elsewhere. Machines for overseas shipment are protected against salt water damp, are properly boxed to conform to all shipping and customs regulations at destination. Write for complete information and prices.

A Few of the Hundreds of Newspapers Using Rockaway Equipment

Chicago American
Cuneo Press
Newark, N. J., Star Eagle
Louisville Herald Post
Pathfinder Magazine
New Orleans Times Picayune
Elizabeth, N. J., Journal
Toronto Star
Seattle Times
Asheville, N. C., Citizen
Buffalo Times
Portland Oregonian
Philadelphia Bulletin
Wisconsin Sentinel-News
Duluth Herald News-Tribune
Birmingham News
Minneapolis & St. Paul Tribune Journal, Star News & Pioneer Press
Salt Lake City Telegram
Kansas City Journal-Post
Albany Knickerbocker Press
Washington, D. C., Star
Buffalo Courier-Express

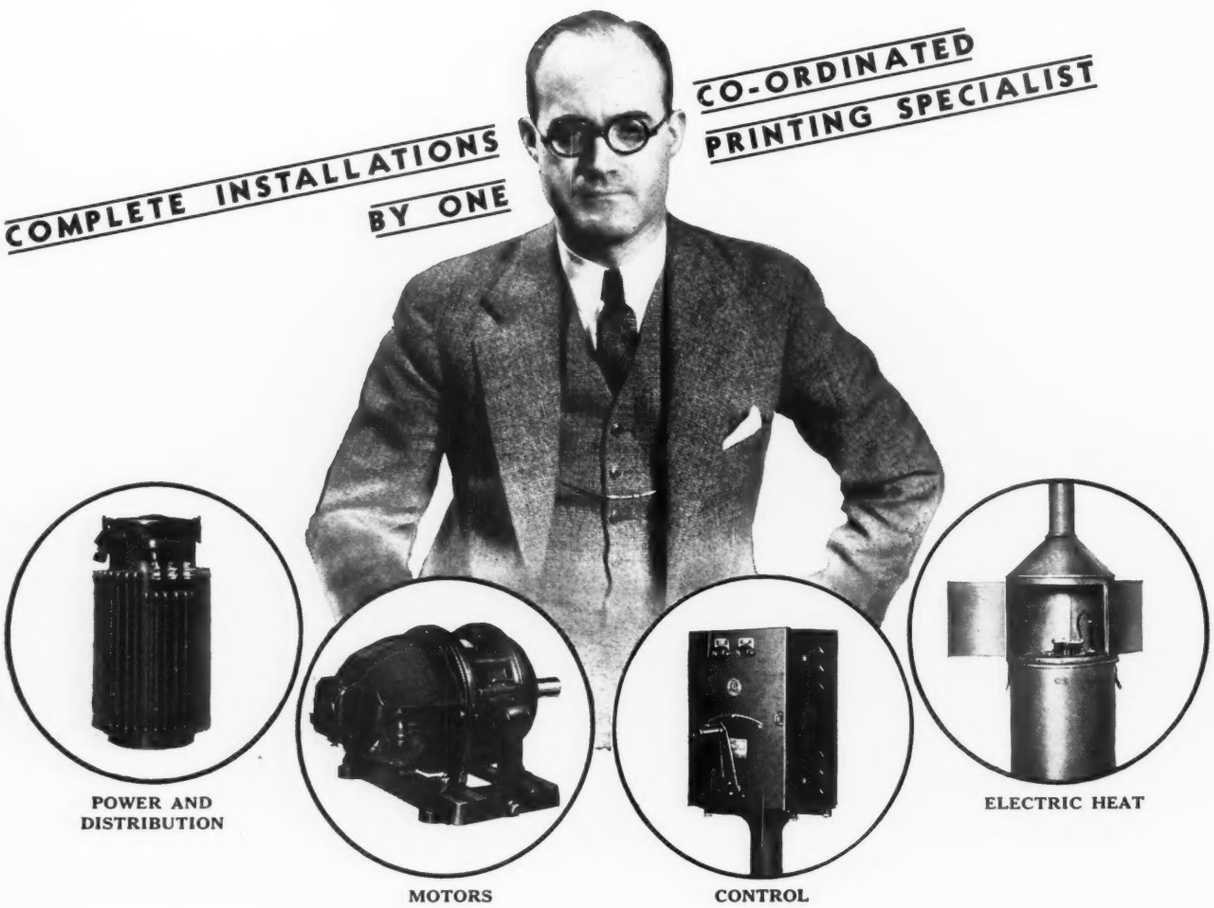
FOREIGN COUNTRIES
2 in Holland
4 in New Zealand
12 in England
2 in Scotland
2 in Australia

THE ROCKAWAY COMPANY 5409 Vliet St., Milwaukee, Wisconsin, U. S. A.

Each Unit Designed by Product

That's Why You Get

COMPLETE INSTALLATIONS BY ONE CO-ORDINATED PRINTING SPECIALIST



IT IS the extra values—superior design, perfection of detail, quality workmanship—which make it more profitable for you to use General Electric equipment.

To give you these values, General Electric has not only trained and experienced printing-equipment engineers to serve you, but also a specialized staff for each individual line of apparatus used in the printing industry.

G-E motors are designed and manufactured by men who have had experience in designing and making every type and size of motor, from the great 22,500-horsepower motors which drive the *U.S.S. Lexington* to small electric-typewriter motors.

A control department which has designed and made thousands of different types of controls for every sort of installation, from small push-button stations to the intricate Panama Canal control system, makes sure that you get the best possible controls for your job.

Electric stereotype heating was pioneered by G-E heating engineers. Today, these engineers continue to lead in the successful application of electric heat throughout the printing industry.

Switchgear, switchboards, transformers, wire, and electric cable—all are made by men who are experts in their particular line. The printing-equipment engineer provides close co-operation between these individual-line specialists and integrates the final design of every installation so that all the units are brought together into one highly efficient, complete printing equipment.

GENERAL

Specialists—

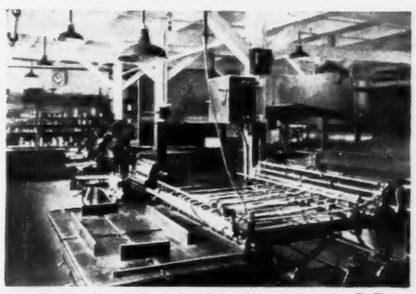
Extra Value from G-E Equipment

FOR EVERY PLANT— LARGE OR SMALL

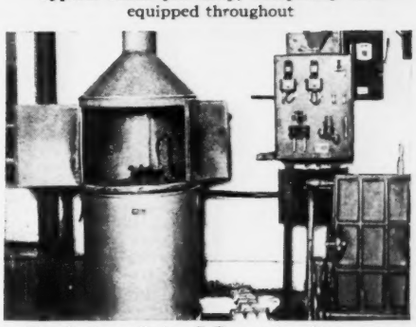
GENERAL ELECTRIC can supply reliable equipment to fill every electrical requirement for every type of printing establishment—from the smallest job shop with one or two platens to the largest printing and publishing houses; from the smallest weekly paper with a single flat-bed press to the largest metropolitan daily with modern high-speed presses.

Dependability is difficult to include in specifications, but easy to get if you insist on General Electric equipment throughout your plant. When you are buying new, or modernizing existing, equipment, it will pay you to take full advantage of the facilities of the General Electric Company. A nation-wide system of sales offices, service shops, and warehouses is always ready to serve you. For detailed information, get in touch with the printing-equipment specialist in the nearest G-E sales office. General Electric, Schenectady, New York.

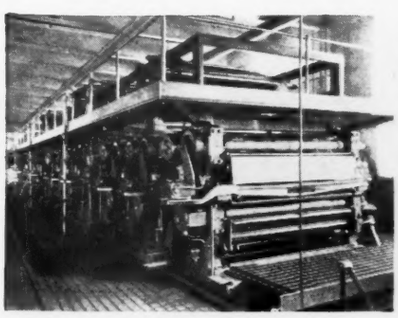
Section of one press room in large G-E equipped commercial printing house



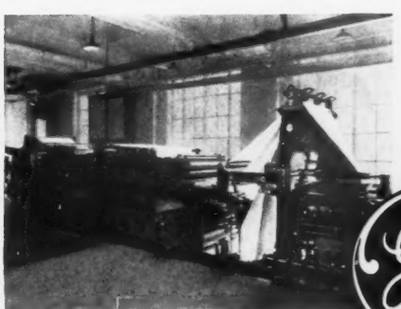
Typical small job shop, completely G-E equipped throughout



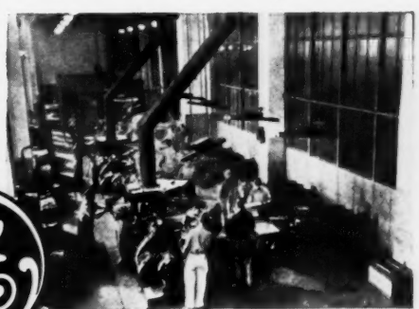
Standard small-size G-E metal-melting pot, used in printing plant for flat-casting and repigging



One row of modern, high-speed press units with G-E drives and control throughout—typical of large metropolitan dailies



Press room completely G-E equipped, typical of installations in small newspaper plants



Typical stereotype room in large metropolitan daily using G-E electric stereotype heating equipment

020-227

E L E C T R I C

Stevenson, Inc., Ashton G., 655 S. Wells St., Chicago, Ill. Composing machines supplies, leads, rules, furniture reglets and metal feeders.
Stevens Type Co., F. H., 13 Custom House St., Boston, Mass. Mfrs. of steel type. Dealer in machinery and supplies.
Stewart Co., Don, 423 Sacramento St., San Francisco, Calif. Mfrs. of brass rule, etc. Dealer in machinery and supplies.
Stewart-Warner Corp., Alemite Div., 1826 Diversey Pky., Chicago, Ill. Lubricating equipment and supplies.
Stiles, Chas L., 64 Hanford St., Columbus, O. Mfrs. of gauge pins.
Stimpson & Co., Inc., Edwin B., 70 Franklin Ave., Brooklyn, N. Y. Eyeletting machines.
Stokes Co., The A., S. Main St., Hudson O. Envelope making and printing press, raised letter printing machines and powders.
Stokes & Smith Co., Summerdale, Philadelphia, Pa. Mfrs. of printing presses, box making and gluing machines, etc.
*Stolp-Gore Co., 710 W. Jackson Blvd., Chicago, Ill. Mfrs. of special machinery for printers and bookbinders. Dealers in machinery.
Stonhard Co., 401 N. Broad St., Philadelphia, Pa. Floor, wall and roof surfacings.
Strait, H. H., 9510 Milton Ave., Oveland, Mo. Mfr. of feed guides, gauge pins and quoins.
Strathmore Paper Co., West Springfield, Mass. Bond, book, cover, writing and specialty papers.
Stripfounders, 1135 Cambridge Ave., Chicago, Ill. Mfrs. of leads, slugs, furniture and rules.
Stromberg Electric Co., 223 W. Erie St., Chicago, Ill. Mfrs. of time, recording and wall clocks; time stamps and elapsed indicators.
Struthers Dunn, Inc., 139 N. Juniper St., Philadelphia, Pa. Melting pots, ladles, switches, relays and thermostats.
Sturtevant Co., B. F., Hyde Park, Boston, Mass. Air and paper conditioning equipment.
Sun Chemical & Color Co. See General Printing Ink Corp.
Superior Printing Ink Co., 295 Lafayette St., New York, N. Y. Inks.
Surface Combustion Co., 2375 Dorr St., Toledo, O. Heaters and neutralizers for printing presses, glue heaters and pots, metal pot heaters.
Surty Mfg. Co., Inc., The, 4139 W. Kinzie Ave., Chicago, Ill. Guards for belts, grinding wheels, paten presses and saws.
Swaine Mfg. Co., F. J., 7th and O'Fallon St., St. Louis, Mo. Pallet and plate presses.
Sweigard Ideal Co., 6122 N. 21st St., Philadelphia, Pa. Mfrs. of printing frames for photo-engravers and lithographers.
Swift & Co., Inc., Chicago, Ill. Adhesives.
Swift, Jr., Inc., George W., Bordentown, N. J. Special printing presses and specialty machinery.
Swift & Sons, Inc., M. 10 Love Lane, Hartford, Conn. Gold leaf in book and roll form.
Sypher-Arcon Co., 1524 Fernwood Ave., Toledo, O. Mfrs. of saw-trimmers.
Syracuse Smelting Works, 147 Jewell St., Brooklyn, N. Y. Metals and fluxes.

T

*Taylor Co., W. E., 209 W. 38th St., New York, N. Y. Mfrs. of rules and borders.
Teague & Co., G. E., 1323 Weleba Ave., St. Louis Mo. Dealers in new machinery.
Teaneck Chemical Works, Teaneck, N. J. Plate making chemicals.
Tech Mfg. Co., 340 W. Huron St., Chicago, Ill. Cleaning compounds.
*Teletypesetter Corp., 1400 Wrightwood Ave., Chicago, Ill. Dealers in new machinery. Teletypesetter apparatus.
Tenacity Mfg. Co., The, Hosea and Cooper, Lockland, O. Metal parts for loose leaf binding.
Tesch Mfg. Co., 2700 S. 19th St., Milwaukee, Wis. Mfrs. of saw sharpening machinery..... 35
Testing Machines, Inc., 458 W. 34th St., New York, N. Y. Paper testing equipment.
Thompson Cabinet Co., Luke St., Ludington, Mich. Mfrs. of composing room equipment, electric backing and special woodwork.
*Thomson National Press Co., Dean Ave., Franklin, Mass. Mfrs. of job printing presses, embossers, die heaters, cutting and creasing machines.
Thormod Monsen & Son, Inc., 730 N. Franklin St., Chicago, Ill. Foundry type and lithographic plates.
Tileston & Hollingsworth Co., 213 Congress St., Boston, Mass. Bond, ledger, book, bristol, cover and offset papers.
Time Saving Device Co., Inc., 599 Kenmore Ave., S. F., Warren, O. Mfrs. of ejector sets for linotypes.
Timken Roller Bearing Co., The, Canton, O. Tapered roller bearings..... 6
Tingue, Brown & Co., 118 E. 25th St., New York, N. Y. Blankets and draw sheets..... 75
Tintograph Co., 53 Park Row, New York, N. Y. Shading equipment and mediums.
Ti-Pi Co., 204 Davidson Bldg., Kansas City, Mo. Rubber printing plate making material.
Toledo Metal Furniture Co., The, 1100-1200 Hastings St., Toledo, O. Office and composing room furniture.
Tompkins, L. R., 608 S. Dearborn St., Chicago, Ill. Printers' machinist.
Tompkins Printing Equipment Co., 705 S. Dearborn St., Chicago, Ill. Dealer.
Trapp & Kuehnle, 253 Pearl St., New York, N. Y. Mfrs. of chases and safety guards. Dealers in parts. Repairs and rebuilds machinery.
Triangle Ink & Color Co., Inc., 26 Front St., Brooklyn, N. Y. Inks.
Triplet Gauge Co., Inc., 1 Dover St., New York, N. Y. Tools.
Truscon Steel Co., The, Youngstown, O. Trucks.
Tryon, Clyde B., 402-410 S. 12th St., Omaha, Nebr. Metal cleaners.
Tucker & Dorsey Mfg. Co., 302 S. State St., Indianapolis, Ind. Trucks.
Turner Type Founders Co., The, 1729 E. 22nd St., Cleveland, O. Dealers in new and used machinery.
Twin City Printers Roller Co., 505 S. 3rd St., Minneapolis, Minn. Printers' rollers.
Typesetting Equipment Co., 245 Seventh Ave., New York, N. Y. Machinist. Repairer of linotypes, etc.

U

Ullman, Sigmund Co., Div. of Gen. Ptg. Ink Corp., See General Printing Ink Corp.
Union Rubber & Asbestos Co., Trenton, N. J. Engravers' rubber solution.
Unique Steel Black Co., 304 Chemung St., Waverly, N. Y. Mfrs. of register base for presses, chase blocks, clamps, etc.
United American Metals Corp., 200 Diamond St., Brooklyn, N. Y. Composing machine, electrotype and stereotype metals: metal flux.
United Metal Seal Co., 257 A St., Boston, Mass. Gluing and labeling machines.
United Shoe Machinery Corp., 140 Federal St., Boston, Mass. Eyeletting machines; ink and overlay knives.
Universal Jogger Co., Inc., 322 S. Fourth St., Minneapolis, Minn. Jogger boxes and machines.
***U.P.M.-Kidder Press Co., Inc., 121 Broadway, Dover, N. H. Mfrs. of printing machinery and sales registers. 132**
Urachrom Co., Teaneck, N. H. Plate making supplies.
U. S. Bronze Powder Works, Inc., 220 W. 42nd St., New York, N. Y. Inks.
U. S. Envelope Co., Springfield, Mass. Envelopes and paper specialties.
U. S. Mfg. Co., 129 E. Market, Indianapolis, Ind. Non-returnable core chucks.
U. S. Stoneware Co., The, 50 Church St., New York, N. Y. Mfrs. of photo-engravers' equipment..... 151
Utility Heater Co., 239 Centre St., New York, N. Y. Mfrs. of heaters, oxidizers, neutralizers, etc. Dealers in new and used machinery. Repairs, etc.

V

Valenti Metal Corp., 973 Grand St., Brooklyn, N. Y. Metals and fluxes.
Valley Paper Co., Holyoke, Mass. Bond, ledger and thin paper.
***Vandercook & Sons, Inc., 900 N. Kilpartick Ave., Chicago, Ill. Mfrs. of proof presses, electrotypers' equipment and supplies..... 27**
Vapo Systems, 1016 N. Dearborn Ave., Chicago, Ill. Spraying equipment for paper webs on presses.
Veeder Root, Inc., Hartford, Conn. Counting devices.
Vertical Service Co., 423 Plymouth Ct., Chicago, Ill. Repairs and services Miehle presses.
*Verrinder, E. A., 827 Alvarado St., Redlands, Calif. Mfrs. of feed tables.
Vibration Eliminator Co., 41-26 37th St., Long Island City, N. Y. Mfrs. of vibration eliminator..... 151
Victor Tape Co., 2689 Holly Ave., Chicago, Ill. Tape moisteners.
Vierengel Machine Co., Inc., M., 360-68 Troutman St., Brooklyn, N. Y. Specialty machinery.
Vogt Roller Co., Inc., 22 S. 12th St., Louisville, Ky. Composition and rubber rollers.
Vulcan Proofing Co., 58th St. and 1st Ave., Brooklyn, N. Y. Litho, offset, make-ready and newspaper blankets; rubber rollers..... 23

W

Wagner Electric Corp., 6400 Plymouth Ave., St. Louis, Mo. Motor drives and controls.
Wagner Litho Machinery Co., Inc., Chas., 51 Park Ave., Hoboken, N. J. Mfrs. of litho machinery and supplies, presses, ovens, varnishing machines, etc.
Waldron Corp., John, River Rd., New Brunswick, N. J. Pallet and plate presses, paraffining, waxing, folding machines and deliveries, knotting, looping, thread stitching and stringing machines.
Walker Cameo Overlay Corp., 1374 Massachusetts Ave., Cambridge, Mass. Zinc and mechanical overlays.
*Walker Supply Co., E. H., 926 H St., N. W., Washington, D. C. Dealer in supplies and equipment.
Wallace & Tiernan Products, Inc., 11 Mill St., Belleville, N. J. Inks, photo-engravers' equipment and supplies, rubber plate making material.
*Wallin Manufacturing Co., 1122 Harvey St., Omaha, Neb. Mfr. of composing room equipment.
Wallmueller, Fritz, 63 W. Broadway, Salt Lake City, Utah. Printing press machinist.
Wapakoneta Machine Co., The, Wapakoneta, O. Paper knives.
Ward & McLean, 91 Main, Lockport, N. Y. Looping machines.
Wardwell Mfg. Co., 3167 Fulton Rd., Cleveland, O. Saw-sharpening equipment..... 151
Warnock Co., W. S., 1524 Jonquil Ter., Chicago, Ill. Mfrs. of printing plate mounting equipment, chases, bases and register hooks..... 149
Warren Co., S. D., 89 Broad St., Boston, Mass. Book, coated, cover and offset papers.
Waterfalls Paper Mills, 21 E. 40th St., New York, N. Y. Bond, cover, offset, ledger and specialty papers.
***Webendorfer-Wills Co., Inc., 2 South St., Mt. Vernon, N. Y. Mfrs. of sheet-fed cylinder presses, offset and web offset presses, electric motors, switches, etc.. 33**
Wehrung & Billmeier Co., 3624-30 Lincoln Ave., Chicago, Ill. Gold leaf.
Weiss, Louis, 1640 Ocean Ave., Brooklyn, N. Y. Printers' machinist.
Welsh, C. L., Route 3, Box 347A, Pleasantville, N. J. Mfrs. of gauge pins and guides.
Wells & Co., 536 S. Clark St., Chicago, Ill. Mfrs. of cross rule form machine.
*Wesel Mfg. Co., Inc., F., Poplar St. and Park Pl., Scranton, Pa. Mfrs. of presses, leveling stands, shears and machinery for graphic arts.
Western Roller & Machine Co., 615 19th St., Denver, Colo. Mfrs. of rollers and gauge pins.
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa. Motor drives and controls.
Weston Electric Instrument Corp., 614 Frelinhuysen Ave., Newark, N. J. Mfrs. of industrial and illumination control relays.
***Wetter Numbering Machine Co., Atlantic Ave. and Logan St., Brooklyn, N. Y. Mfrs. of numbering machines..... 142**
Wharton & Co., Inc., William, Jr., Easton, Pa. Ink mixing equipment.
Whitehead & Hoag Co., Inc., 272 Sussex Ave., Newark, N. J. Celluloid.
Whiting Paper Co., Holyoke, Mass. Bond, book, ledger, linen and writing papers; papeteries and bristols.
Whiting Paper Co., George W., Leominster, Mass. Bond and ledger papers.
Whiting-Plover Paper Co., Stevens Point, Wis. Bond cover, ledger, onion skin and writing papers.
Wiebking Engraving Co., 1131 Newport Ave., Chicago, Ill. Mfrs. of matrices for typesetting and typemaking machines.
Wiedemann Quoin Co., The, 44 Webster St., Revere, Mass. Mfrs. of quoins.
Wild & Stevens, Inc., 5 Purchase St., Boston, Mass. Letterpress, newspaper, offset and lithographic rollers..... 110
Wildes' Son, Inc., Thomas, 23 Borden Ave., Long Island City, N. Y. Metals and fluxes.
Williams, Brown & Earle, Inc., 918 Chestnut St., Philadelphia, Pa. Bookbinding materials, magnifying and reducing glasses.
Williamson Glue & Gum Works, 2327 W. 18th St., Chicago, Ill. Adhesives.
*Willsea Publishing Co., 1276 W. 3rd St., Cleveland, O. Publishers Printing Equipment Engineer.
Willsea Works, 1042 University Ave., Rochester, N. Y. Mfrs. of special machinery.
Wing Mfg. Co., L. J., 158 W. 14th St., New York, N. Y. Air and paper conditioning equipment.
Wing's Sons, Chauncey, 78 Pierce St., Greenfield, Mass. Mfrs. of addressing and mailing machines used by newspaper and magazine publishers.
Winn & Goodman, 350 Sansome St., San Francisco, Calif. Composition rollers and padding composition.
Winslow Ink Corp., 124 White St., New York, N. Y. Inks.
Wood Flong Corp., Hoosick Falls, N. Y. Stereotypers dry mats..... 35
Wood & Nathan Co., Inc., 112 Charlton St., New York, N. Y. Dealers in machinery.
Wood Newspaper Machinery Corp., 501 Firth Ave., New York, N. Y. Mfrs. of web presses and stereotyping equipment..... 20
Wrenn Paper Co., The, Middletown, O. Blotting paper.
Wright Co., The J. T., 2103 Reading Rd., Cincinnati, O. Punches, paper drilling and drill slotting machines.

Y

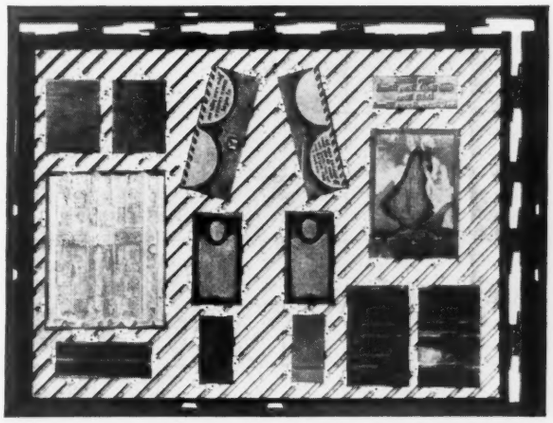
Yale & Towne Mfg. Co., 4530 Tacony St., Philadelphia, Pa. Trucks.
Yeager Process Co., Marion, O. Roller fabric covering.
Young Engineering Co., 2757 High St., Chicago, Ill. Mfrs. of printing presses.

Z

Zanetti Machine Works, J., 1701 Kirkwood Ave., San Francisco, Calif. Mfrs. of ruling machines, feeders and routing machines. Dealers in machinery. Repairers.
Zapon Co., The, 269 Ludlow St., Stamford, Conn. Bookbinding materials.
Zarkin Machine Co., Inc., 365 Cherry St., New York, N. Y. Mfrs. of graining machine for litho trade.
Zeigler & Son Machine Co., R., 210 Vine St., St. Louis, Mo. Machinists. Repairs and service.
Zeiss, Inc., Carl, 485 Fifth Ave., New York, N. Y. Cameras, magnifying and reducing glasses, photo-engravers' equipment and supplies.
Zellner Foundry Co., The, 2088 Scranton Rd., Cleveland, O. Metal remelting equipment.
Zenke, H. C., 8927 120th St., Richmond Hill, New York, N. Y. Stereotype plate and depth gauge.
*Zimmers Printers Supply Co., 72 Beekman St., New York, N. Y. Dealers in machinery, type, dies, cabinets, rules, etc.
Zim Quoin Co., 44 Oakland St., Medford, Mass. Quoins.
Zwoboda Press Mfg. Co., 460 W. 34th St., New York, N. Y. Printing presses.

ENDORSED BY PRINTERS FROM COAST to COAST

for SPEEDY LOCK-UP • PRECISION REGISTER
LASTING SERVICE • REAL ECONOMY

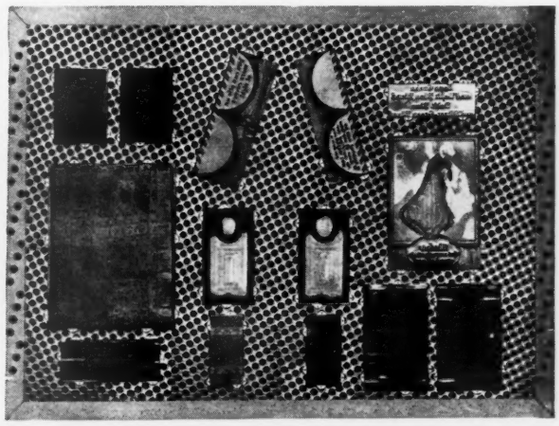


GENUINE PMC WARNOCK DIAGONAL BLOCK and REGISTER HOOK SYSTEM of plate mounting combines all of the essential characteristics to insure maximum make-up economy.

Consider these exclusive features:

It has been discovered that malleable iron, because of its remarkable strength, wearing qualities and uniformity of texture is the ideal metal for plate mounting service. Thus genuine PMC Warnock Blocks are made of Malleable iron and as an extra precaution against warping or "growing" are made 4" x 4" in size.

Genuine PMC Warnock Blocks mean heavy lips—rugged corners—one hundred per cent flexibility—unlimited printing surface and maximum time saving. Write for catalog describing this system in detail.



GENUINE PMC STERLING TOGGLE HOOK and BASE SYSTEM of plate mounting is particularly designed to take care of intricate lock-up of large plates, or for mounting smaller plates with a greater degree of speed and accuracy. Hairline register is the result in addition to a considerable savings of time on the stone.

In order to meet these rigid requirements every precaution has been taken to avoid any possibility of dimensional change taking place in the form. Genuine PMC Sterling Toggle Bases are made "L" shape of semi-steel recognized for its unusual strength and constantly maintained standards of accuracy. Thus when you lock up a form with the Genuine PMC Sterling Toggle Hook and Base System, it is with definite assurance of speedy results, precision register and all-round job protection. A request will bring you catalog and prices.

"WARNOCK" 4 by 4 METAL BLOCKS

PMC PRECISION METAL BASES TRADE MARK REG. U.S. PAT. OFF.

"STERLING" TOGGLE BASES

THE PRINTING MACHINERY COMPANY
436 COMMERCIAL SQUARE • • • • CINCINNATI, OHIO

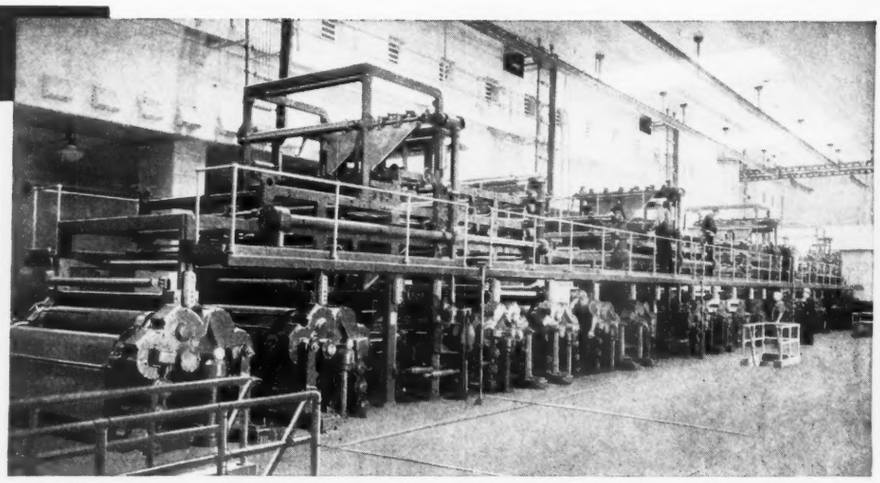
461 Eighth Ave. New York, N. Y.
Canada: Toronto Type Foundry Co., Ltd., Toronto
Australia: Carmichael & Company, Sidney
England: Wm. J. Light & Co., London
Italy: D. G. Vianini & Company, Milan
20 West Jackson Blvd. Chicago, Illinois

Printing Perfection

In One or More Colors... NEWSPAPER...

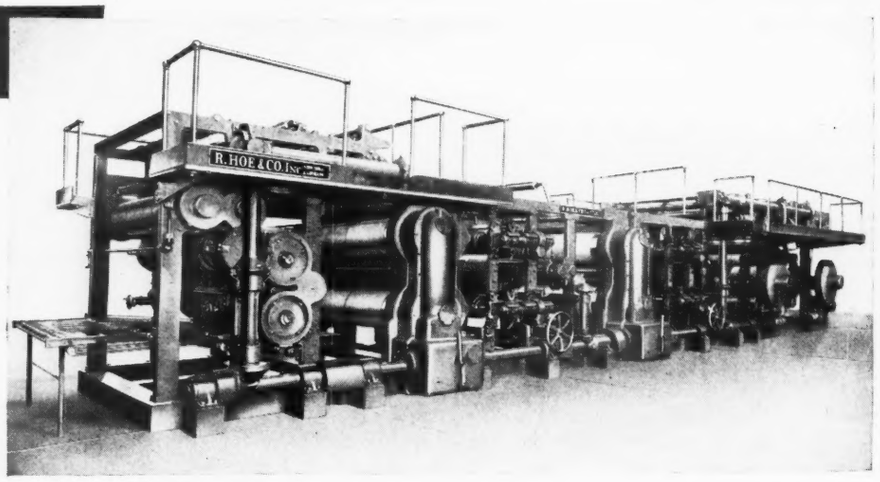
NEWSPAPER

Hoe Super-Production Presses produce, with safety and maximum economy, at the highest speed, the finest quality of newspaper printing. Hoe is also prepared to furnish the very latest, fastest, and finest color printing equipment to meet all newspaper requirements, including auxiliary color fountains, portable ink pumps and rails, extra color cylinders, color attachments of every description and complete color presses.



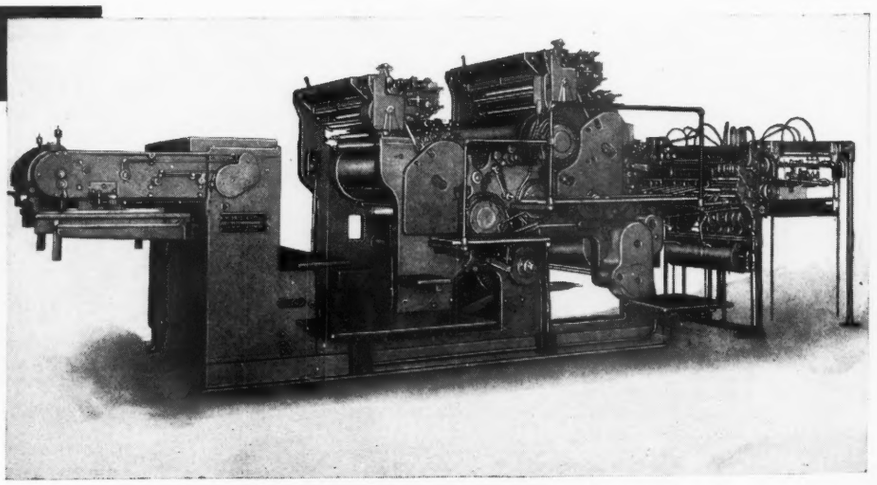
MAGAZINE

The application of such Hoe Engineering features as steel cylinders, anti-friction bearings, Hoe Ink Pumps, etc., to the construction of Hoe Super-Production Magazine Presses has resulted in better printing at greatly increased speeds.



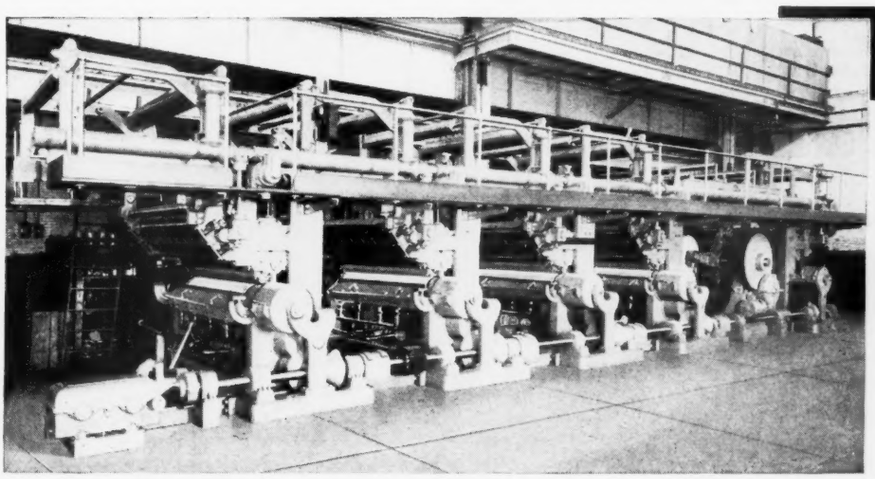
OFFSET

Applying time-proved principles of Hoe design to offset printing, and other original features of design, has produced the "World's Finest Offset Press," built by Hoe, for one-and two-color printing.



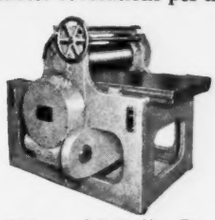
at High Speed . . .

MAGAZINE...ROTOGRAVURE...OFFSET

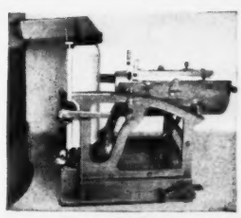


ROTOGRAVURE

The New Hoe Super-Production Rotogravure Press assures the finest quality of multi-color roto printing at 15,000 to 20,000 cylinder revolutions per hour.

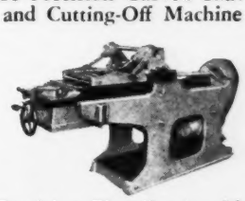


Hoe "Monarch" Roller Bearing Matrix Rolling Machine



Hoe Vacuum Curved Casting Mould with Electrically-Heated Spout

Hoe Precision Curved Shaver and Cutting-Off Machine



Hoe Precision Flat Shaving Machine

The preeminence of Hoe equipment is the natural result of more than 100 years devoted to printing progress and perfection by the world's largest printing press plant. Consequently Hoe customers are assured the ultra modern design and superior construction so essential to speedy, economical, and safe printing.

The economical production of quality printing requires accurate precision-built plate-making equipment. In addition to the machines illustrated, Hoe's complete line includes the most efficient stereotyping, engraving and electrotyping equipment for newspaper and magazine plate-making.

The Hoe Full-Speed Paster assures by its simplicity and efficiency the maximum production from Newspaper, Rotogravure, and Magazine Presses, new or old.

R. HOE & Co., Inc.

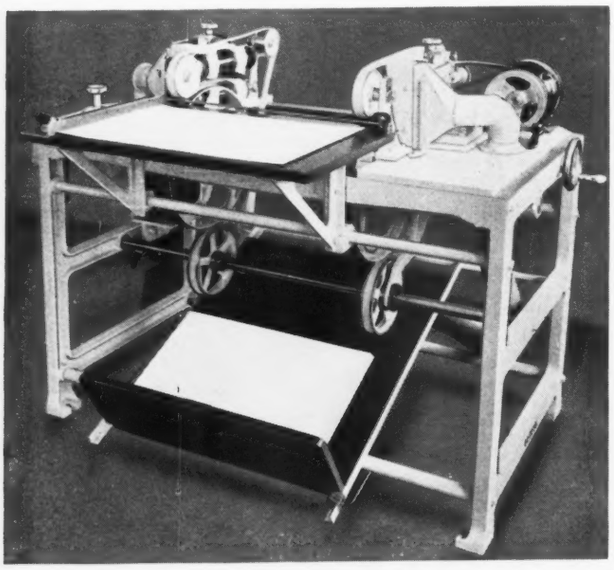
General Offices
910 East 138th Street
(at East River)
New York City

BOSTON SAN FRANCISCO CHICAGO

Feather Edging Machine

The edges of paper stock from light weight sheets to heavy cards may be processed by the new Leader Feather Edge Machine made by the Lester & Wasley Company. The edges of paper, cards, photo mounts and calendars may be given edges similar to that used by the photo-mount trade. It is said that the edge has the same appearance on both sides of the sheet. Cut-outs, also, may be processed in the machine.

The processing of the edges is done by means of special



View of Leader Feather Edge Machine.

cutting units, up to ten of these operating on both the top and bottom surfaces of the work. These units revolve at a speed of some 5000 r.p.m., and as each unit has more than 100 individual cutting edges each piece of work being feather-edged receives at least ten thousand individual cuts as it passes the cutting station.

Two opposite edges from 6 in. to 24 in. in width can be processed and the machine has a feeding capacity of 100 pieces, 10 in. long, processing two opposite edges per minute. Work is fed into the machine from a table. The stock is carried past the cutting units and is delivered into a tray beneath the feeding pile. An exhaust mechanism removes all stock dust and cuttings.

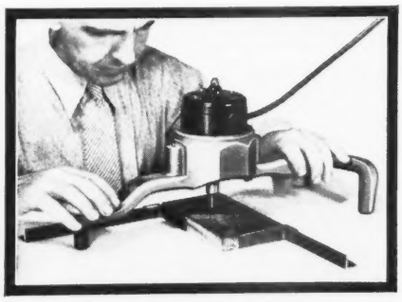
An adjustable hand wheel at the right of the operator is operable to change the working width of the machine. The cutting units are adjustable for height according to thickness of stock.

Portable Router

Pioneer Mfg. Co. is sponsoring a portable router for work on zinc etchings, stereos, electros, line-slug forms, wood cuts and linoleum tint blocks. The router length is 18 in., width is 7 in., height is 9 in., and its weight is 10 lbs. A universal motor having a spindle speed of 15,000 r.p.m. operates from any a.c. or d.c. light socket.

The router has three-point support and the depth of cut is under control by means of an operating knob or wheel in one of the supporting legs. A full turn of the knob in the screw leg lowers the cutting bit 1/20 in. Standard router bits having ¼ in. diam. shank are used and Allen set screws lock the tool-holding chuck.

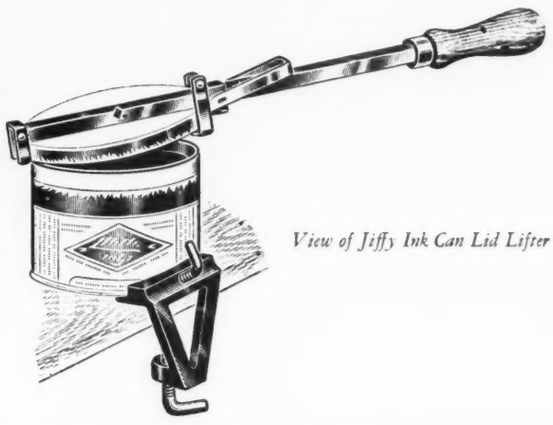
A work-holder is furnished and consists of two angle rails which are to be screwed to any smooth bench.



The cut to be routed is locked in the corner with adjustable clamps. If work is to be done on an imposing stone the plate to be routed may be locked in a chase.

Jiffy Ink Can Lid Lifter

The Jiffy Lid Lifter is designed to remove the lid quickly from any size ink can. It is said the instrument will not dent, mar or bend the can or lid. It is adjustable



View of Jiffy Ink Can Lid Lifter

from one pound size up to and including a 25-pound can. Further information may be obtained by writing A. J. Hoerth & Company direct or in care of *Printing* EQUIPMENT *Engineer.*

Nubian—Horizontal Effect

Answering a demand for a black type face carrying out a definite horizontal effect, the American Type Founders Sales Corporation has prepared a showing of

NUBIAN

A Black Horizontal

Nubian is available in 13 sizes from 6 point to 72 point in both upper and lower case.

A broadside illustrating some of the unusual display effects possible with this face in advertising and other printed matter may be obtained upon request to American Type Founders.

Banta Passes

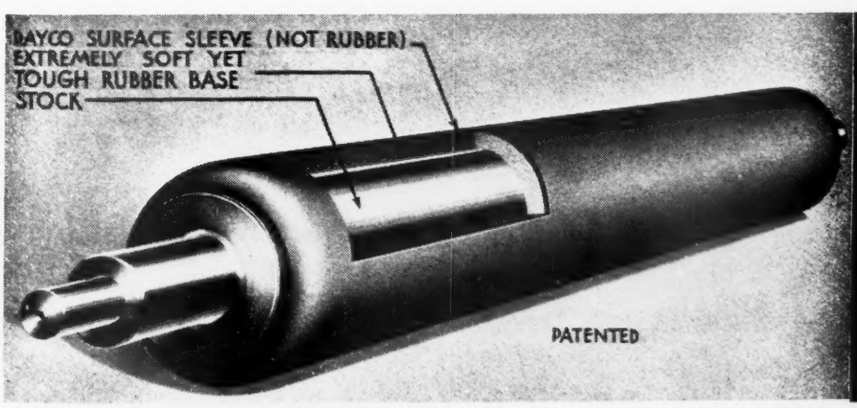
George Banta, founder and President of the George Banta Publishing Company, Menasha, Wis., passed away September 23.

DAYCO
"STAYPUT"

A YEAR 'ROUND INKING ROLLER
for
NEWSPAPER PRESSES

Oil-Proof—A Real Achievement in Rubber Roller Development eliminating Swelling, Shrinking and the Need of *Re-setting.*

The Dayton Rubber Manufacturing Co. Manufacturers of highly engineered products for over twenty years *developed* and *perfected* Dayco "Stayput" Rollers bringing to the newspaper pressroom this present-day improvement.

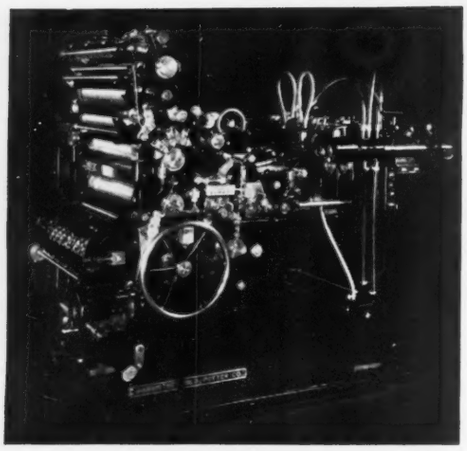


DAYCO
"STAYPUT"
ROLLERS

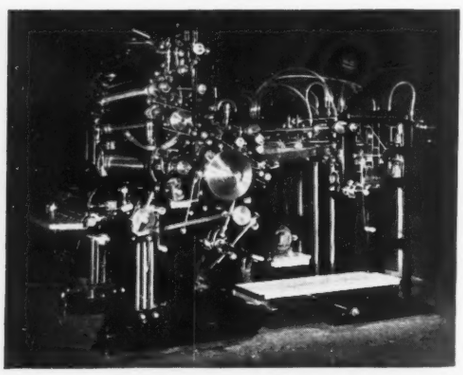
Exclusive Distributors

NELSON ROLLER COMPANY

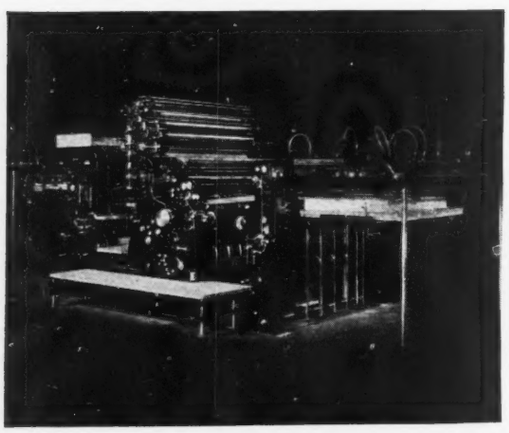
TRIBUNE TOWER - CHICAGO, ILLINOIS



• 17x22 Medium Priced Commercial Offset Job Press—Harris built—guaranteed, serviced.



• 22x34 EL Offset Press adapted for long and short runs—high quality black and white and precision color work.



• 32x44 LSC Offset Press built to handle standard paper sizes in one, two, three and four color models with optional registering mechanisms.

HARRIS·SEYBOLD·POTTER

HARRIS OFFSET PRESS SPECIFICATIONS

	LSB 17x22 1-color	EL 22x34 1-color	LSC 32x44 1-color
NORMAL STOCK SIZE	8½"x11" to 17"x22"	10"x14" to 22"x34"	17"x22" to 32"x44"
MAXIMUM STOCK SIZE	17½"x22½"	23"x36"	35"x45"
NORMAL TRANSFER SIZE	16⅝"x22"	21⅝"x34"	31⅝"x44"
MAXIMUM TRANSFER SIZE	17⅛"x22½"	22½"x35"	34⅝"x45"
PLATE SIZE	19¾"x23"	25½"x36"	39"x46"
BLANKET SIZE	23¾"x23"	29¼"x36"	45½"x46½"
SPEED (Sheets per hour)		Feed Roll / Swing Feed	Feed Rolls / Three Point Register
Normal Register	7000	6000 / 5000	5000 / 4500
Accurate Register	6000	5500 / 4500	4500 / 4000
PILE FEEDER	Harris (maximum pile 20")	Harris (maximum pile 42")	Harris (maximum pile 42")
REGISTERING MECHANISM	Tumbler Grippers	Feed Rolls or Swing Feed Optional	Feed Rolls or Three Point Register Optional
DELIVERY	Harris Receding Pile Delivery (maximum pile 18")	Harris Receding Pile Delivery (maximum pile 20")	Harris Receding Pile Delivery (maximum pile 44")
INK DISTRIBUTION			(For each color)
Form Rollers (covered)	3—2 9/16"	4—2 9/16"	4—3½"
Distribution Rollers (covered)	5—2⅛"	6—2⅛"	9—2⅞"
Duct Rollers (covered)	1—2⅛"	1—2⅛"	1—2½"
Storage Rollers	2—3"	2—3⅓"	2—4⅞"
Rider Rollers	2—1"	1—2 7/16", 3—1¼"	3—1¼"
Drums	1—3", 1—5.8"	1—7½", 1—5"	1-3⅛",1-10½",1-4⅞" 2—3¼"
Auto Vibrating Rollers			
Extra:			
Form Rollers (bare)	3	4	4
Duct Rollers (bare)	1	1	1
Distributing Rollers (bare)			1
WATER DISTRIBUTION			
Dampening Rollers (covered)	2—2¼"	2—3 1/16"	2—3 1/16"
Duct Roller (covered)	1—2¼"	1—3 1/16"	1—3 1/16"
Intermediate Roller (aluminum)	1—2¼"	1—3"	1—3"
Water Pan Roller	1—3½"	1—4"	1—4"
Extra:			
Dampening Rollers (covered)	2	2	2
Duct Roller (covered)	1	1	1
POWER REQUIRED			
Drive Motor	3 H. P.	3 H. P.	7½ H. P.
Feeder Motor	½ H. P.	1 H. P.	2 H. P.
FLOOR SPACE	4'1"x6'7"	7'1"x10'7"	9'11"x21'2"
HEIGHT	5'8"	6'11"	8'2½"
BASE	3'3"x4'9"	4'7"x3'6"	6'3"x4'6"
NET WEIGHT (pounds)	4,725	10,100	23,000
SHIPPING WEIGHT (pounds)			
Domestic	5,725	12,300	27,300
Export	6,625	15,300	31,200
CUBIC MEASURE (cubic ft.) Export	250	625	850

HARRIS • SEYBOLD • POTTER COMPANY, Cleveland, Ohio

General Offices: **4510 EAST 71st STREET**

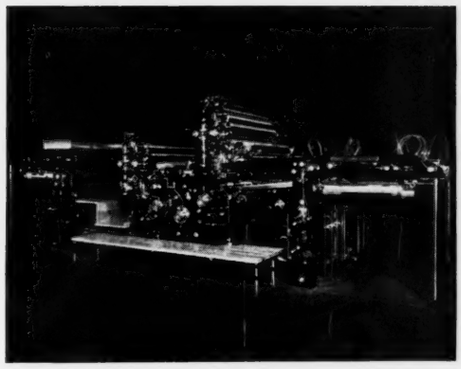
HARRIS
Choice of the

HARRIS-SEYBOLD-POTTER

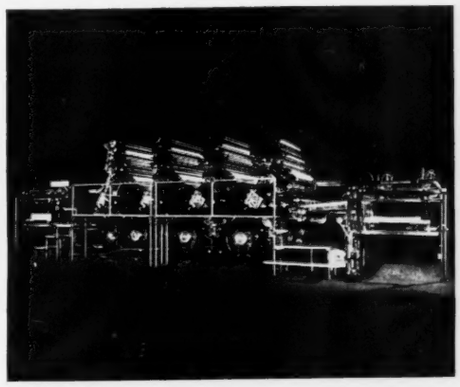
HARRIS OFFSET PRESS SPECIFICATIONS

LB 38x52 1-color	GT 38x52 2-color	LSF 46x67½ 1-color	LSG 46x67½ 2-color	LSH 46x67½ 4-color
22″x34″ to 38″x52″	22″x34″ to 38″x52″	46″x67½″	46″x67½″	46″x67½″
41″x54″	41″x54″	46½″x68½″	46½″x68½″	46½″x68½″
37⅝″x52″	37⅝″x52″	45⅝″x67½″	45⅝″x67½″	45⅝″x67½″
40½″x53″	40½″x53″	46⅛″x68″	46⅛″x68″	46⅛″x68″
45½″x54″	45½″x54″	49½″x68½″	49½″x68½″	49½″x68½″
51″x54½″	51″x54½″	57″x68½″	57″x68½″	57″x68½″
Feed Rolls 4500 Three Point Register 4000 4000 3500	Feed Rolls 4500 Three Point Register 4000 4000 3500	Feed Rolls 4000 Three Point Register 3500 3500 3000	Feed Rolls 4000 Three Point Register 3500 3500 3000	Feed Rolls 4000 Three Point Register 3500 3500 3000
Harris (maximum pile 42″)	Harris (maximum pile 42″)	Harris (maximum pile 49″)	Harris (maximum pile 49″)	Harris (maximum pile 49″)
Feed Rolls or Three Point Register Optional	Feed Rolls or Three Point Register Optional	Feed Rolls or Three Point Register Optional	Feed Rolls or Three Point Register Optional	Feed Rolls or Three Point Register Optional
Harris Receding Pile Delivery (maximum pile 44″)	Harris Receding Pile Delivery (maximum pile 44″)	Harris Receding Pile Delivery (maximum pile 49″)	Harris Receding Pile delivery (maximum pile 49″)	Harris Receding Pile Delivery (maximum pile 49″)
4—3½″ 10—2½″ 1—2½″ 2—4⅞″ 2—3⅛″, 6—1¼″ 1—7½″, 1—10½″	(For each color) 4—3½″ 10—2½″ 1—2½″ 2—4⅞″ 2—3⅛″, 6—1¼″ 1—7½″, 1—10½″	4—3¾″ 7—3½″ 1—3½″ 2—6.007″ 1—1½″ 1—4½″, 1—9½″ 3—3¼″	(For each color) 4—3¾″ 7—3½″ 1—3½″ 2—6.007″ 1—1½″ 1—4½″, 1—9½″ 3—3¼″	(For each color) 4—3¾″ 7—3½″ 1—3½″ 2—6.007″ 1—1½″ 1—4½″, 1—9½″ 3—3¼″
4 1 1	(Total) 8 1 1	4 1 1	(Total) 8 1 1	(Total) 16 2 2
For each color: 2—3 1/16″ 1—3 1/16″ 1—3″ 1—4″	For each color: 2—3 1/16″ 1—3 1/16″ 1—3″ 1—4″	For each color: 2—3 9/16″ 1—3 9/16″ 1—4″ 1—4″	For each color: 2—3 9/16″ 1—3 9/16″ 1—4″ 1—4″	For each color: 2—3 9/16″ 1—3 9/16″ 1—4″ 1—4″
For each color: 2 1	For each color: 2 1	For each color: 2 1	For each color: 2 1	For each color: 2 1
7½ H. P. 2 H. P.	10 H. P. 2 H. P.	15 H. P. 3 H. P. 2 H. P.	20 H. P. 3 H. P. 2 H. P.	30 H. P. 3 H. P. 2 H. P.
10′7″x21′7″	11′1″x26′2″	13′1″x25′8″	14′4″x31′7″	14′4″x41′9″
7′10″	8′4½″	8′10″	9′10″	9′10″
6′10″x4′5″	6′10″x6′7″	8′3″x5′2″	8′3″x8′6″	8′3″x18′8″
24,100	38,000	45,000	72,000	125,000
28,500 33,300	46,200 55,500	50,000 55,000	82,000 92,000	150,000 175,000
920	1,300	1,200	1,800	3,000

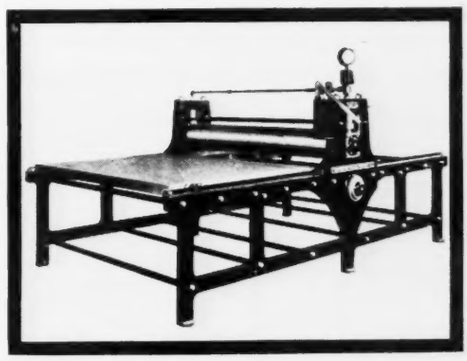
Harris Sales Offices: **New York, 330 West 42nd St. • Chicago, 343 South Dearborn St. • Dayton, 813 Washington St.** *Factories:* **Cleveland, Dayton.**



• *38 x 52 GT Two Color Offset Press. Recognized standard of the world in offset equipment.*



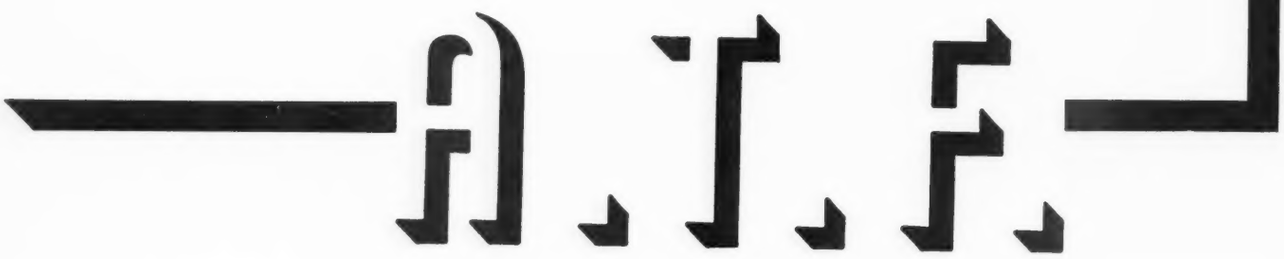
• *LSH Four Color Offset Press which takes a sheet 46½x68½.*



• *A precision machine for making hand transfer plates without distortion, stretch or slipping.*

PRESSES *Leaders . . .*

When you consult the **PRINTING EQUIPMENT ENGINEER** *Index... look for the initials*



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DETROIT, MICH., *557 West Larned Street*
WASHINGTON, D. C., *1224 H Street, N. W.*
ST. LOUIS, MO., *2135 Pine Street*
MILWAUKEE, WIS., *737 North Van Buren Street*
MINNEAPOLIS, MINN., *421 Fourth Street, South*
KANSAS CITY, MO., *934 Wyandotte Street*
DENVER, COLO., *1351 Stout Street*
PORTLAND, ORE., *115 S. W. Fourth Avenue*
SAN FRANCISCO, CAL., *500 Howard Street*
SEATTLE, WASH., *Western Avenue and Columbia*
DALLAS, TEXAS, *600 South Akard Street*
LOS ANGELES, CAL., *222 South Los Angeles Street*
DES MOINES, IOWA, *924 Grand Avenue*

TYPE • PRESSES • MACHINERY • MISCELLANEOUS PRINTING EQUIPMENT

Types used: Bodoni Family, Stymie Black, Shadow (blown up) and Franklin Gothic

Printing EQUIPMENT *Engineer*

1936

Equipment and Supplies Reference Number

PRODUCTS INDEX

For the Printing Equipment and Supplies Trade

To the Production or Mechanical Executive:

In the following pages will be found a helpful Products Index. Under each major classification are printed the names of the manufacturers (as far as we can locate them) furnishing that particular equipment, machine or supply.

This Products Index has been compiled for *you* without charge to the manufacturer so that you can locate any product and its manufacturer as quickly as possible. Consult the index often and use it freely when in need of information.

Each advertiser represented in this issue of *Printing* EQUIPMENT *Engineer* is listed in the Products Index in bold-face type under the suitable products headings together with the page number upon which the advertisement appears. Turn to the advertisement as indicated in the Products Index to assist you in finding the information of which you are in need.

We urge our production and mechanical executive readers in all cases to use the advertisements in conjunction with the Index to obtain the fullest information possible.

As is stated in the Manufacturers' Index each company listing preceded by an asterisk (*) is a member of the National Printing Equipment Association, Inc.

While every care has been taken to see that all listings are correct, *Printing* EQUIPMENT *Engineer* cannot be responsible for any omissions or errors.

—*Editor.*

A

ACCORDION FOLDING MACHINES
See Feeders, Folders, etc.

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a. Dextrine *d.* Padding Composition
b. Glues *e.* Paste
c. Gums *f.* Rubber Cement

American Glue Co., 11th Ave., New York, N. Y.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** ... **60A-60B-62-90**
Arabol Mfg. Co., Inc., The, 110 E. 42nd St., New York, N. Y.—*b-c-e.*
Ault & Wiborg, Dana Ave., Cincinnati, O.—*b-c-d-e.*
Bingham & Runge Co., The, 1374 E. 12th St., Cleveland, O—*d.*
Bingham Bros. Co., Inc., 406 Pearl St., New York, N. Y.—*b-d.*
Bradley, Milton, Co., Inc., 74 Park St., Springfield, Mass.
Buckeye Paste Co., 270 S. Wall St., Columbus, O.—*c-e.*
Buckie Printers' Roller Co., 714 S. Clark St., Chicago, Ill.
Burrage, Robert R., 15 Vandewater St., New York, N. Y.—*b-d.*
Dennison Mfg. Co., Inc., Howard St., Framington, Mass.
Denny, Hilborn & Rosenbach, 230 N. 12th St., Philadelphia, Pa.
Diem & Wing Paper Co., Inc., Gilbert Ave. Viaduct, Cincinnati, O.—*e.*
Fuller, H. B., Co., 186-190 W. Kellogg Blvd., St. Paul, Minn.—*b-c-d-e.*
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Manhattan Paste & Glue Co., 382 2nd Ave., New York, N. Y.
National Adhesive Corp., 820 Greenwich St., New York, N. Y.—*b-c-e.*
Osgood, J. H., Co., 33 Purchase St., Boston, Mass.—*b-f.*
Reliable Printing Equipment Co., The, 357 Bangor Bldg., Cleveland, O.—*f.*
Rogers Isinglass & Glue Co., 210 Eastern Ave., Gloucester, Mass.—*b.*
Russia Cement Co., Gloucester, Mass.—*a-b-c-d-e.*
Swift & Co., Inc., Chicago, Ill.
Williamson Glue & Gum Works, 2327 W. 18th St., Chicago, Ill.
Winn & Goodman, 350 Sansome St., San Francisco, Cal.—*b-d.*

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See Dynamos, etc.

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See Ink Agitators.

AIR BRUSHES
See Offset Preventing Equipment.

AIR AND PAPER CONDITIONING EQUIPMENT *A.T.F.*

Advance Mfg. Co., Inc., 350 N. 26th St., Louisville, Ky.
American Blower Corp., 6000 Russell St., Detroit, Mich.
Bahnson Co., The, 1605 Reynolds Bldg., Winston-Salem, N. C.
Bristol Co., The, Waterbury, Conn.
Carrier Engineering Corp., 850 Frelinghuysen Ave. Newark, N. J.
Foxboro Co., The, School St., Foxboro, Mass.
Offen, B., & Co., 608 S. Dearborn St., Chicago, Ill.
Parks-Cramer Co., 970 Main St., Fitchburg, Mass.
*Southworth Machine Co., 30 Warren Ave., Portland, Me.
Standard Engineering Works, Pawtucket, R. I.
Sturtevant Co., B. F., Hyde Park, Boston, Mass.
Vapo Systems Equipment Co., 1016 N. Dearborn St., Chicago, Ill.
*Willsea Works, The, 1042 University Ave., Rochester, N. Y.
Wing Mfg. Co., L. J., 158 W. 14th St., New York, N. Y.

AIR PUMPS
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ALUMINUM BOOK BLOCKS
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Pitman Co., Harold M., 33rd St. at 51st Ave., Chicago, Ill.
Rolled Plate Metal Co., 196 Van Brunt St., Brooklyn, N. Y.
Senefelder Co., Inc., 32-34 Greene St., New York, N. Y.

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See also Shading Sheets for Drawings and Proof.
Bourges Service, Inc., 175 Fifth Ave., New York, N. Y.

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*Dexter Folder Co., 28 W. 23rd St., New York, N. Y.
*Sheridan, T. W., & C. B., Co., 135 Lafayette St., New York, N. Y.

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AUTOMATIC LABEL EMBOSSING AND PRINTING PRESSES
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AUTOMATIC MULTIPLE COLOR PRINTING, DIE CUTTING, DIE PUNCHING, LENGTH AND CROSSWAY CUTTING MACHINES
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AUTOMATIC PAPER CUTTERS
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See Feeders.

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BACKING CLOTH
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Lockport Machine Co., 60 Chestnut St., Lockport, N. Y.
Potdevin Machine Co., Inc., 1221 38th St., Brooklyn, N. Y.
Smith & Winchester Mfg. Co., The, South Windham, Conn.

BAG MAKING AND PRINTING MACHINERY
See Printing Presses.

BALING PRESSES, CONTAINERS AND TIES FOR WASTE PAPER *A.T.F.*

Business Men's Paper Press Co., Wayland, Mich.
Davenport Mfg. Co., Davenport, Ia.
Economy Baler Co., Inc., 1254 N. Main St., Ann Arbor, Mich.
Galland-Henning Mfg. Co., 2753 S. 31st Ave., Milwaukee, Wis.
Logemann Bros. Co., Inc., 3154 W. Burleigh St., Milwaukee, Wis.
Minnich Machine Works, Inc., Landisville, Pa.

BANDING AND BUNDLING PRESSES *A.T.F.*

Anderson, C. F., & Co., 3225 Calumet Ave., Chicago, Ill.
Berry Machine Co., 716 N. First St., St. Louis, Mo.
*Dexter Folder Co., 28 W. 23rd St., New York, N. Y.
Hall, A. W., Co., 1155 Fulton St., Chicago, Ill.
*Liberty Folder Co., The, East Court St., Sidney, O.
*Sheridan, T. W., & C. B., Co., 135 Lafayette St., New York, N. Y.

BAND SAWS
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BANK CHECK IMPRINTING MACHINES
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BANK NOTE ENGRAVING MACHINERY
Dickinson, C. W., Jr., 321 Cortland St., Belleville, N. J.

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Graton & Knight Co., 356 Franklin St., Worcester, Mass.—*c-e.*
Keystone Rubber Co., 180 N. Wacker Drive, Chicago, Ill.—*a-c.*
Manhattan Rubber Mfg. Div., The, Raybestos-Manhattan Inc., 61 Willett St., Passaic, N. J.—*d.*
Rhodes, J. E. & Sons, 35 N. 6th St., Philadelphia, Pa.—*c.*
*Royle, John, & Sons, Straight and Essex Sts., Paterson, N. J.—*c.*
Sterling Rubber Products Co., The, 115 N. Jefferson St., Dayton, O.—*a.*

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BENCH PAPER CUTTERS
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BEVELING MACHINERY (FOR METAL)
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BLOWERS (CLEANING, PORTABLE)

Beckfield Rotary Vacuum Blower Co., 221 Penn Ave., Pittsburgh, Pa.
Breuer Electric Mfg. Co., 852 Blackhawk St., Chicago, Ill.
Clements Mfg. Co., 6650 S. Narraganset Ave., Chicago, Ill.
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BOOK CHASES
See Chases, etc.

BOOK COMPRESSORS
See Bookbinding Machinery.

BOOK COVERING MACHINES
See Bookbinding Machinery.

BOOK FINISHING MACHINES
See Bookbinding Machinery.

BOOK GUIDES, PAPER CUTTER
See Bookbinding Machinery.

BOOK LOCKS
See Loose Leaf Metal.

BOOK MATCH COVER PRINTING AND FINISHING MACHINES
See Printing Presses.

BOOK SEWING MACHINES
See Sewing Machines.

BOOK SMASHING MACHINES
See Bookbinding Machinery.

BOOK STABBING MACHINES
See Bookbinding Machinery, etc.

BOOK TRIMMERS
See Cutting and Trimming Machines.

BOOK TRIMMING GUIDES FOR CUTTING MACHINES
See Bookbinding Machinery.

BOOKBINDERS' CLOTH
See Cloth.

BOOKBINDERS' HAND SHEARS
See Shears

BOOKBINDERS' LEATHER
See Cloth, etc.

BOOKBINDERS' MACHINERY DRIVES
See Dynamos, etc.

BOOKBINDERS' PRESSES
See Die Stamping, etc., Presses.

BOOKBINDERS' SUPPLIES
See Bookbinding Machinery, etc.

BOOKBINDING MACHINERY, TOOLS AND SUPPLIES

Bookbinders' and other machines, accessories and tools used in producing books. For Book Cloth and Book Leathers, see Cloth, etc.; see Adhesives; Assembling, etc., Machines; Bronzing Machines; Cabinets, etc.; Counters, Daters, Numbering and Paging Machines; Cutting and Trimming Machines; Feeders, Folders, etc.; Glue Heaters, etc.; Gluing, Gumming, etc.; Machines; Perforating, Punching, etc.; Machinery Round Corner Cutters, etc.; Sewing Machines; Slitting and Rewinding Machines; Standing Presses; Stitching Machines; and Tables. *A.T.F.*

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
Allied Printing & Binding Machinery Co., 1975 E. 65th St., Cleveland, O......122
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**.....60A-60B-62-90
Anderson, C. F., & Co., 3225 Calumet Ave., Chicago, Ill.
Angle Steel Stool Co., 127 Oak St., Plainwell, Mich.
***Challenge Machinery Co., The, Grand Haven, Mich.**.. 21
*Chambers Bros. Co., 52nd St. and Media, Philadelphia, Pa.
*Fuller, E. C., Co., 28 Reade St., New York, N. Y.
*Hacker Mfg. Co., 320 S. Honore St., Chicago, Ill.
***Harris-Seybold-Potter Co., Seybold Machine Co., Div., Dayton, O**.....88-89
Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y......131
Marresford, Wm. F., Inc., College and Highland Aves., Niagara Falls, N. Y.
Martin Machinery Corp., 136 Liberty St., New York, N. Y.
Meyers, L. W., Co., 1828 Milwaukee Ave., Chicago, Ill.
Missouri Brass Type Foundry, 22nd and Howard Sts., St. Louis, Mo.
Oversewing Machine Co., 770 E. Washington Ave., Los Angeles, Calif.
Parry, S. R., 224 Mill St., Rochester, N. Y.
Pleger, John J., Co., 609 W. Lake St., Chicago, Ill.
Renz, Fred, & Son, 7025 83rd St., Glendale, Long Island, N. Y.
*Sheridan Co., T. W. & C. B., 135 Lafayette St., New York, N. Y.
*Smyth Mfg. Co., The, 9 Sigourney St., Hartford, Conn.
*Smyth Co., Jos. E., 343 S. Dearborn St., Chicago, Ill.
Standard Machinery Co., The, 12 Water St., Mystic, Conn.
*Thompson-National Press Co., Inc., Franklin, Mass.

BORDERS (DECORATIVE MATERIAL, FANCY INITIALS, BRASS FLOURISHES, ORNAMENTS, ETC.)
See Type.

BORING MACHINES (CURVED PLATE)
See Stereotypers' Machinery.

BOX COVERING, LINING AND WRAPPING MACHINES
See Carton and Paper Box Makers' Machinery.

BOX MAKERS' MACHINERY
See Carton and Paper Box Makers' Machinery.

BOX PRINTING MACHINERY
See Printing Presses, Combined Process.

BOX STITCHING MACHINES
See Stitching Machines.

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***Chandler & Price Co., 6000 Carnegie Ave., Cleveland O. 63**

***Cline Electric Mfg. Co., 211 W. Wacker Drive, Chicago, Ill. ... 13**

Cutler-Hammer, Inc., 542 N. Twelfth St., Milwaukee, Wis.

*Thomson-National Press Co., Franklin, Mass.

BRASS AND STEEL CATCHES FOR PLATE MOUNTING EQUIPMENT
See Plate Mounting Equipment.

BRASS GALLEYS
See Galleys.

BRASS RULE, BRASS AND COPPER THIN SPACES *A.T.F.*
For Vertical Tabular Brass Rule see Broaches.

*American Steel Chase Co., 122 Centre St., New York, N. Y.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. ... 60A-60B-62-90**

Empire Type Foundry, Delevan, Cattaraugus Co., N. Y.

Missouri-Central Type Foundry, Wichita, Kans.

Stewart, Don, Co., 423 Sacramento St., San Francisco, Calif.

BRASS TYPE
See Type.

BRAYERS
See Rollers.

BROACHES, FOR PREPARING LINOTYPE SLUGS FOR VERTICAL RULE—INCLUDES VERTICAL BRASS RULE

Chicago Lino-Tabler Co., 53 W. Jackson Blvd., Chicago, Ill.

BRONZE LEAF
See Foil.

BRONZING MACHINES, BRONZE BURNISHERS, DUSTERS AND SIEVES, BRONZER FEEDERS INCLUDED

Barma Sales Agency, 530 Atlantic Ave., Boston, Mass.

***Christensen Machine Co., 100 Fourth St., Racine, Wis. 11**

Henschel, C. B., Mfg. Co., 229 W. Mineral St., Milwaukee, Wis. ... 147

Hollingsworth, William, Machine Co., 227 N. Holliday St., Baltimore, Md. ... 116

***U.P.M.-Kidder Press Co., 121 Broadway, Dover, N.H. 132**

BRONZE POWDERS, METALLIC INK *A.T.F.*

Baer Bros., 438 W. 37th St., New York, N. Y.

***Doyle, The J. E., Co., 310 Lakeside Ave., Cleveland O. 151**

Meyer, The E. W., Co., 407 E. Michigan St., Milwaukee, Wis.

Oroline Products Co., 127 W. Harrison St., Chicago, Ill.

Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

Senefelder Co., Inc., 32-34 Greene St., New York, N. Y.

BRUSH SHIFTING MOTORS
See Dynamos, etc.

BUMPING-UP PRESSES
See Stereotypers' and Electrotypers' Machinery.

BUNDLING PRESSES
See Banding and Bundling Presses.

BUNDLE TYING AND PACKAGING MACHINES

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. ... 60A-60B-62-90**

Anderson, C. F., Co., 3225 Calumet Ave., Chicago, Ill.

Barkley Associates, 716 Federal St., Boston, Mass.

Bunn, B. H., Co., 7605 Vincennes Ave., Chicago, Ill.

Dexter Folder Co., 28 W. 23rd St., New York, N. Y.

Gerrard Co., Inc., The, 2915 W. 47th St., Chicago, Ill.

Hickock, W. O., Mfg. Co., Inc., 9th and Cumberland Sts., Harrisburg, Pa.

Hudson-Sharpe Machine Co., 1207 Main St., Green Bay, Wis.

BURNERS, GAS, FOR PRESSES
See Electric and Gas Heaters.

BURNISHERS, BOOKBINDERS
See Bookbinding Machinery, etc.

C

CABINETS, CASES, RACKS, STANDS *A.T.F.*

Acme Printing Appliance Co., The, 333 S. Clinton St., Chicago, Ill.

Allied Steel Equipment Co., Lapeer, Mich.

Angle Steel Stool Co., Inc., Plainwell, Mich.

Auto Sheet Metal Works, Inc., 6106 S. Avalon Blvd., Los Angeles, Calif.

Berger Mfg. Co., Canton, O.

***Challenge Machinery Co., The, Grand Haven, Mich. .. 21**

Empire Type Foundry, Delevan, Callarangus County, N. Y.

Franklin Printers Supply Co., 608 Cherry St., Philadelphia, Pa.

Globe Wernicke Co., The, Norwood, Cincinnati, O.

Hamilton Mfg. Co., Two Rivers, Wis.

Hart, R. E., Mfg. Co., Battle Creek, Mich.

Hoe, R., & Co., Inc., 138th St. & E. River, New York, N. Y. ... 84-85

Hollingsworth, Wm., Machine Co., 227 N. Holliday St., Baltimore, Md. ... 116

***Ludlow Typograph Co., 2032 Clybourne Ave., Chicago, Ill. ... 3**

Missouri-Central Type Foundry, Wichita, Kan.

*Monomelt Co., The, Inc., 1611-15 Polk St., N.E., Minneapolis, Minn.

*Morgans & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.

Remington-Rand, Inc., 465 Washington St., Buffalo, N. Y.

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. ... 25**

Thompson Cabinet Co., Luke St., Ludington, Mich.

CABINET SAW TABLES
See Sawing, Trimming Machinery.

CALENDAR PRINTING MACHINES
See Printing Presses.

CALENDAR PUNCHING AND STRINGING MACHINES

*Fuller, E. C., Co., 28 Reade St., New York, N. Y.

Morrison, J. L., Co., Niagara Falls, N. Y.

*Smyth Mfg. Co., The, 9 Sigourney St., Hartford, Conn.

CAMERA AND COLOR LAMPS
See Cameras.

CAMERA MULTIPLE NEGATIVE ATTACHMENTS
See Cameras.

CAMERAS (LITHOGRAPHIC AND OFFSET AND ACCESSORIES, INCLUDING FILTERS AND SCREENS—FOR PHOTO-ENGRAVERS' EQUIPMENT AND SUPPLIES

Agfa-Ansco Camera Co., 245 W. 55th St., New York, N. Y.

American Machine & Foundry Co., Inc., 511 Fifth Ave., New York, N. Y.

Atlas Electric Devices Co., 361 W. Superior St., Chicago, Ill.

Aurora School of Photo-Engraving, The, Aurora, Mo.

Eastman Kodak Co., 343 State St., Rochester, N. Y.

Fuchs & Lang Mfg. Co., 100 Sixth Ave., New York, N. Y.

General Printing Ink Corp., 100 Sixth Ave., New York, N. Y. Rutherford Machinery Co. Div.

Goerz American Optical Co., Inc., C. P., 317 E. 34th St., New York, N. Y.

***Lanston Monotype Machine Co., 24th and Locust Sts., Philadelphia, Pa. ... 15**

*Levy, Max, & Co., Wayne and Berkley Sts., Philadelphia, Pa.

***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Station, Chicago, Ill. ... 30**

Pitman Co., Harold M., 51st Ave. at 33rd St., Chicago, Ill.

*Robertson, R. R., 400 W. Madison St., Chicago, Ill.

Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

*Wesel, F., Mfg. Co., Scranton, Pa.

Zeiss, Inc., Carl, 485 Fifth Ave., New York, N. Y.

CANS (BENZINE, OIL AND WASTE) *A.T.F.*

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. ... 60A-60B-62-90**

Angle Steel Stool Co., 820 N. Oak St., Plainwell, Mich.

Hoe, R., & Co., 138th St. and East River, New York, N. Y. ... 84-85

Justrite Mfg. Co., 2085 Southport Ave., Chicago, Ill. .. 151

Photo-Engraving Equipment and Supplies, 716 W. Indiana Ave., Philadelphia, Pa.

Ritchie, W. C., & Co., 831 W. Van Buren St., Chicago, Ill.

Sexton Can Co., 31 Cross St., Boston, Mass.

CARD BLANKS
See Paper and Board.

CARD COLOR PRINTING PRESSES
See Printing Presses.

CARD CUTTERS
See Cutting and Trimming Machines.

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See Adhesives; Banding and Bundling Presses; Bundle Tying Machines; Cutting Machines; Cutting Rule Bending, Creasing and Cutting Machines; Cutting, Creasing and Perforating Rule; Gluing, Gumming, etc., Machinery; Ink; Printing Presses; Sawing, Trimming, etc., Machinery; Shears; Stitching Machines, etc.

Automatic Box Machinery Concern, 270 Congress St., Boston, Mass.

Beck Machinery Co., Chas., 414 N. 13th St., Philadelphia, Pa.

Coes Co., Loring, 1 Coes Sq., Worcester, Mass.

*Fuller, E. C., Co., 28 Reade St., New York, N. Y.

Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.

Inman Mfg. Co., Inc., 51 Guy Park Ave., Amsterdam, N.Y.

Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. ... 131

***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Station, Chicago, Ill. ... 30**

Parry, S. R., 224 Mill St., Rochester, N. Y.

*Richards, J. A., Co., 903 N. Pitcher St., Kalamazoo, Mich.

Standard Paper Box Machinery Co., Inc., 115 Wooster St., New York, N. Y.

Staude Mfg. Co., E. G., St. Paul, Minn.

Stokes & Smith Co., Frankford, Philadelphia, Pa.

Willsea Works, The, 1042 University Ave., Rochester, N. Y.

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See Printing Presses.

CASE AND CASE MAKING MACHINES
See Bookbinding Machinery.

CASE BACK FORMING MACHINES
See Bookbinding Machinery.

CASE BENDING MACHINES
See Bookbinding Machinery.

CASES
See Cabinets.

CASING-IN MACHINES
See Bookbinding Machinery.

CASTERS, FOR TRUCKS
See Trucks.

CASTING BOXES
See Stereotypers' Machinery, etc.

CAST IRON CHASES
See Chases, etc.

CAST IRON NEWSPAPER BASES
See Plate Mounting Equipment.

CATALOG AND MAGAZINE WRAPPING MACHINES
See Mailers and Mailing Machines.

CATALOG PRINTING AND FINISHING MACHINES
See Printing Presses.

CATCHES, PLATE BRASS AND STEEL
See Plate Mounting Equipment.

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Celluloid Corp., 10 E. 40th St., New York, N. Y.

DuPont, De Nemours, E. I. Co., 140 N. Sixth St., Philadelphia, Pa.

Eastman Kodak Co., 343 State St., Rochester, N. Y.

Parisian Novelty Co., 3512 S. Western Ave., Chicago, Ill.

Whitehead & Hoag Co., Inc., 272 Sussex Ave., Newark, N. J.

CELLOPHANE LAMINATING MACHINES

Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. ... 131

CELLULOID TABBING MACHINES

***Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill .. 151**

CENTRIFUGAL HUMIDIFIERS
See Air and Paper Conditioning

CHAIRS, PRESS SEATS AND STOOLS *A.T.F.*

Angle Steel Stool Co., Plainwell, Mich.

Do-More Chair Co., 216 Monger Bldg., Elkhart, Ind.

Globe-Wernicke Co., Inc., Carthage St., Cincinnati, O.

*Miller Printing Machinery Co., 1117 Reedsdale Ave., Pittsburgh, Pa.

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. ... 25**

CHALK OVERLAYS
See Overlays.

CHASES, CHASE LOCKS, WRENCHES, CYLINDER PRESS BED LOCKS, JOB LOCKS, LOCK-UPS, PAGE FRAMES, QUOINS, QUOIN KEYS, REGISTER NUTS, AND QUOIN LOCKS *A.T.F.*

***Abrams, M. L., Printing Machinery Co., 1639 Superior Ave., Cleveland, O.** **121**

American Steel Chase Co., 122 Center St., New York, N. Y.
Ajax Safety Quoin Mfg. Co., 874 Broadway, New York, N. Y.
American Adjustable Lockup Co., The, Torrington, Conn.
Andrews Heating Co., 117 S. E. Main, Minneapolis, Minn.

***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O.** **63**

Clark Mfg. Co., 53 Washington St., New York, N. Y.

Challenge Machinery Co., The, Grand Haven, Mich. .. **21**

Eastern Malleable Iron Co., Wilmington, Del.
Ever Ready Machinists, Inc., 10 Peck Slip, New York, N. Y.

Goss Printing Press Co., The, 1535 S. Paulina St., Chicago, Ill. ..... **Inside Front Cover—1**

Hempel, H. A., 55 Baynes Ave., Buffalo, N. Y.
Missouri-Central Type Foundry, Wichita, Kans.
Moore Machinery Co., 109 S. Hanover St., Baltimore, Md.

***Morgans & Wilcox Mfg. Co.,** 69 Hanford St., Middletown, N. Y.

*Nonpareil Sub-Chase Co., 268 First St., San Francisco, Calif.

***Ostrander-Seymour Co., The, 1870 S. 54th St., Cicero Station, Chicago, Ill.** **30**

Precision Printers Equipment Co., 102 E. Walnut St., Milwaukee, Wisc.

***Printing Machinery Co., The, 436 Commercial Sq., Cincinnati, O.** **83**

Reibe Quoin Co., 122 N. Lamon Ave., Chicago, Ill.
Reliable Printing Equipment Co., 357 Bangor Bldg., Cleveland, O.

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.** **25**

***Sandblom Steel Chase Co., 426 S. Clinton St., Chicago, Ill.** **148**

Stephen & Wickersham Quoin Co., 174 High St., Boston, Mass.
Straight, H. H., 9510 Milton Ave., Overland, Mo.

Warnock, W. S., Co., 1524 Jonquil Terrace, Chicago, Ill. **149**

Wiedmann, Quoin Co., The, 44 Webster St., Revere, Mass.
Zim Quoin Co., 44 Oakland St., Medford, Mass.

CHASE RACKS
See Cabinets.

CHECK IMPRINTING AND NUMBERING MACHINES
See Printing Presses.

CHECK PRINTING AND FINISHING MACHINES
See Printing Presses.

CHUCKS (NON-RETURNABLE CORES)

U. S. Mfg. Co., 129 E. Market St., Indianapolis, Ind.
Waldron, John, Corp., New Brunswick, N. J.

CIRCULAR LETTER PRINTING PRESSES
See Printing Presses.

CIRCULAR SAW FILING MACHINES

Hoe, R., & Co., 138th St. and East River, New York, N. Y. **84-85**

Rogers, Samuel C., & Co., Inc., 191 Dutton Ave., Buffalo, N. Y.

CIRCULAR SAWING MACHINES AND SAWS
See Sawing, Trimming, etc., Machinery.

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Black Cross Metal Cleanser Co., 128 Moss Ave., Highland Park, Mich.
Chalmers Chemical Co., 123 Chestnut St., Newark, N. J.
Franklin Printers Supply Co., 608 Cherry St., Philadelphia, Pa.

Hollingsworth, William, Machine Co., 227-229 Holliday St., Baltimore, Md. **116**

Indiana Chemical & Mfg. Co., 23 E. 26th St., New York, N. Y.
Perfection Products Co., 116 Earl St., Rochester, N. Y.
Perfection Type, Inc., 141 E. 5th St., St. Paul, Minn.
Reliable Printing Equipment Co., The, 357 Bangor Bldg., Cleveland, O.
Smith, Francis X., Co., 952 E. 93 St., Canarsie, Brooklyn, N. Y.
Tech Mfg. Co., 340 W. Huron St., Chicago, Ill.

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Athol Mfg. Co., Athol, Mass.
Bancroft & Sons Co., Joseph, Wilmington, Del.
Carpenter Co., Inc., L. E., 444 Freylinghuysen Ave., Newark, N. J.
Coated Textile Mills, Inc., Pawtucket, R. I.
Columbia Mills, Inc., 225 Fifth Ave., New York, N. Y.
DeJonge, Louis, & Co., 69 Duane St., New York, N. Y.
DuPont, DeNemours, E. I., & Co., Inc., Fabrikoid Div., Newburgh, N. Y.
Eagle Ottawa Leather Co., 912 W. Washington Blvd., Chicago, Ill.
Gutmann & Co., 1511 Webster Ave., Chicago, Ill.
Holliston Mills, Inc., The, Lenox St., Norwood, Mass.
Interlaken Mills, 18 Thomas St., New York, N. Y.
Keratol Co., Inc., The, 348 Van Buren St., Newark, N. J.
Lawrence Leather Co., A. C., 210 South St., Boston, Mass.
Meyer Thread Co., Inc., John C., 1495 Middlesex St., Lowell, Mass.
Malloy Co., David J., 2859 N. Western Ave., Chicago, Ill.
Oppenheimer Co., Otto H., 382 Freylinghuysen Ave., Newark, N. J.
Steinhardt Leather Co., 201 McWhorter St., Newark, N.J.
Williams, Brown & Earle, Inc., 918 Chestnut St., Philadelphia, Pa.
Zapon Co., The, 269 Ludlow St., Stamford, Conn.

CLOTH COVERED ROLLERS
See Rollers.

CLOTH CUTTING AND GLUING MACHINES
See Bookbinding Machinery.

COATING MACHINES
For Applying Paints and Varnish to Sheets other than Paper. For Paper Coating, see Gluing, etc.

Ceiucoating Process Co., 2924 Locust St., St. Louis, Mo.
Fuchs & Lang Mfg. Co., 100 Sixth Ave., New York, N. Y.
General Printing Ink Co., Rutherford Machinery Div., 100 Varick St., New York, N. Y.

COFFEE AND TEA BAG MAKING AND PRINTING MACHINES
See Printing Presses.

COLLAPSIBLE TUBE PRINTING MACHINES
See Lithographic and Offset Plate Making and Printing Equipment and Supplies.

COLLATING MACHINES
See Assembling, etc., Machines.

COLOR FOIL OR LEAF
See Foil.

COLOR OR DAYLIGHT LAMPS
See Cameras.

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Slater, H. Robert, Co., 1443 Carroll Ave., Chicago, Ill.

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Meinograph Process, Inc., 605 Fisher Bldg., Detroit, Mich.

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See Cameras.

COLOR PRESS CONTROLS
See Dynamos, etc.

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See Printing Presses.

COLOR REDUCING FILM

Bourges Service, Inc., 175 Fifth Ave., New York, N. Y.

COLOR ROTARY PRESSES
See Printing Presses.

COMBINATION CUTTER AND MITERER
See Lead, etc., Cutting Machines.

COMBINATION REGISTER HOOK KEYS
See Plate Mounting Equipment.

COMBINED JIG SAW AND DRILLING MACHINES
See Sawing, Trimming, etc., Machinery.

COMBINED SAW TABLE AND MONORAIL TRIMMER
See Sawing, Trimming, etc., Machinery.

COMBINING MACHINES
See Gluing, Gumming, etc., Machines.

COMMISSARY BOOK PRINTING AND MAKING MACHINES
See Printing Presses.

COMPLETE BINDERS
See Bookbinding Machinery.

COMPOSING CAMERAS OR MACHINES
See Lithographic and Offset Plate Making, etc., Equipment.

COMPOSING AND MAKE-UP RULES AND STICKS *A.T.F.*

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.** **25**

Star Tool Works, Inc., Springfield, O.
*American Steel Chase Co., 122 Centre St., New York, N. Y.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** **60A-60B-62-90**

***Hamilton Mfg. Co., 1315 18th St., Two Rivers, Wisc.**
Stephens & Wickersham Quoin Co., 174 High St., Boston, Mass.

COMPOSING ROOM CABINETS
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See Proof and Test Presses.

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See Sawing, Trimming, etc., Machinery.

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Alexander & Cox, 2358 Ogden Ave., Chicago, Ill.—*b*

American Publishers Supply, P. O. Box 131, West Lynn, Mass.—*b-d* **16-17-18**

*American Steel Chase Co., 122 Centre St., New York, N. Y.—*a-b*
American Type-O-Writer Co., Ltd., 212 N. Chevy Chase Dr., Glendale, Calif.—*e*

***Automatic Saw Sharpening Co., 735 E. Ohio St., Indianapolis, Ind. Mold cooler and mold polish.**—*d* **140**

Barager, M. E., 6523 20th Ave., N.E., Seattle, Wash.—*b-d*,

Booth, E. A., Rubber Co., 364 Rockefeller Bldg., Cleveland, O.—*d* **137**

Campbell, James, 154 Nassau St., New York, N. Y.,—*d*.
Chicago Lino-Tabler Co., 53 W. Jackson Blvd., Chicago, Ill.—*b*.

Composing Room Engineers, Inc., 1817 Guarantee Title Bldg., Cleveland, O.—*d* **125**

Curle Mfg. Co., 500 Sansome St., San Francisco, Calif.—*b*.

Dixon Crucible Co., Jos., Jersey City, N. J.—*d* **139**

Dixon, Norval H., & Co., 345 Poplar Rd., Indianapolis, Ind.—*b*.
Ewald Co., 1726 Second Ave., Minneapolis, Minn.—*b-d*.

***Intertype Corp., 360 Furman St., Brooklyn, N. Y.** —*a-b-c-d* ..... **Outside Back Cover**

Klean-O-Mat Co., 21 West St., Suite 1001, New York, N. Y.—*e* **69**

***Lanston Monotype Machine Co., 24th and Locust Sts., Philadelphia, Pa.**—*c-g-h-i* **15**

Linograph Corp., Davenport, Iowa—*a-b-d*.

Linotype Parts Corp., 203 Lafayette St., New York, N. Y.—*b-d* **127**

Linotype Supply Co., 321 Broadway, New York, N. Y. —*b-d*.

***Ludlow Typograph Co., 2032 Clybourn Ave., Chicago, Ill.**—*a-b-d* **3**

***Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y.**—*a-b-c-d* **53**

*Monomelt Machine Co., Inc., The, 1611 Polk, N. E., Minneapolis, Minn.
Monotype Machine Service Co., 318 W. Randolph St., Chicago, Ill.—*b-d-f*.

*Montgomery & Bacon, 2 Elizabeth St., Towanda, Pa. —*b-d-f*.
National Matrix Co., 15 S. Frederick St., Baltimore, Md.—*d-f*.

Newton's Machine Shop, 211 High Ave., Cleveland, O.—*b-d-f* **148**

Perfection Type, Inc., 141 East 5th St., St. Paul, Minn—*b*.

Printers' Machinery & Supply Co., 723 First St., Detroit, Mich.—*d* **149**

Reid Brothers, Inc., 140 Elliott St., Beverly, Mass—*b-d* **129**

Reid, William & Co., 537 S. LaSalle St., Chicago, Ill. —*b-d* **151**

Rich & McLean, 60 Cliff St., New York, N. Y.—*b-d*.

Rockaway Co., The, 5409 W. Vliet St., Milwaukee, Wis.—Spaceband polisher. **79**

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.**—*d* **25**

Smith, F. X., Co., 953 E. 93rd St., Canarsie, Brooklyn, N. Y.—*d*.

*Smyth Manufacturing Co., The, 9 Sigourney St., Hartford, Conn.—Spaceband polisher.

Stahl Newspaper Supply Co., Inc., Oregonian Bldg., Portland, Ore.—*a-d* **4-5-59**

Stevenson, Inc., Aston G., 655 S. Wells St., Chicago, Ill.—*d*.
Stowe & Woodward, Inc., Newton Upper Falls, Mass.—*d*.

*Teletypesetter Corp., 1400 Wrightwood Ave., Chicago, Ill.—*c*.

Time Saving Device Co., Inc., The, 599 Kenmore Ave., S. E., Warren, O.—*b*.
Wiebking Engraving Co., 1133 Newport Ave. Chicago, Ill.—*b*.

COMPOSING MACHINE OPERATORS' CHAIRS AND STANDS
See Chairs.

COMPOSITION BLOCKS
For Cutting Color and Tint Plates.

Paratin Printing Plate Co., Terminal Bldg., Rochester, N. Y.

Republic Engineering & Designing Co., 311 N. Desplaines St., Chicago, Ill.

COMPOSITION ROLLERS
See Rollers.

COMPRESSORS
See Booking Machine.

CONFETTI MAKING MACHINES
See Perforating, Punching and Confetti Making Machines, etc.

CONSTANT SPEED MOTORS
See Dynamos, etc.

CONTACT NEGATIVE MACHINES
See Lithographic and Offset Plate Making, etc.

CONTINUOUS FORM PRINTING AND FOLDING MACHINES
See Printing Presses.

CONTROLLERS
See Electrical, Press, etc., Also Dynamos, etc.

CONVEYORS, MAGAZINE AND NEWSPAPER

Cutler-Hammer, Inc., 542 N. Twelfth St., Milwaukee, Wis.

Jampol Co., The, 11 Park Pl., New York, N. Y.

Lamson Co., The, Syracuse, New York, N. Y.

Read Machinery Co., Inc., York, Pa.

CONVEYORS, SHEET TO BRONZER
See Bronzing Machines and Feeders, Folders, etc.

COOLING SYSTEMS
See Air and Paper Conditioning Equipment.

COPPER CYLINDER GRINDING MACHINES
See Rotogravure Printing Machinery.

COPPER PLATE PRESSES
See Die Stamping, etc., Presses.

COPPER PLATES
See Aluminum, Copper and Zinc Plates.

COPPER THIN SPACES
See Brass Rule, etc.

COPYING INKS
See Ink.

CORK, FOR STEEL RULE DIES
See Carton and Paper Box Makers' Machinery

CORK FOUNDATION
See Vibration Absorbing and Wear Resisting Floors.

CORK MOULDING BLANKETS
See Blankets.

CORNER CUTTERS AND KNIVES
See Carton and Paper Box Makers' Machinery. Also Round Corner Cutters.

CORNER STAGING MACHINES
See Bookbinding Machinery.

CORNER TURN-IN MACHINES
See Bookbinding Machinery.

CORRUGATED PAPER MAKING MACHINES
See Carton and Paper Box Makers' Machinery, etc.

COUNTER SALES BOOK PRINTING AND MAKING MACHINES
See Printing Presses.

COUNTERS, DATERS, NUMBERING AND PAGING MACHINES *A.T.F.*

*American Numbering Machine Co., 224 Shepherd Ave., Brooklyn, N. Y.

*Arnold Numbering Machine Co., 9 North Franklin St., Chicago, Ill.

Bates Mfg. Co., The, Lakeside Ave., West Orange, N. J.

***Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill. 13**

*Detroit Numbering Machine Co., 535 Bates St., Detroit, Mich.

Force, Wm. A., & Co., 105 Worth St., New York, N. Y.

Hart, R. E., Mfg. Co., 14th St., Merrill Park, Battle Creek, Mich.

Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.

Hoole Machine & Engraving Works, Inc., 30 Main St., Brooklyn, N. Y.

Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. 131

Numbering Machine Hospital, 681 Market St., San Francisco, Calif.

Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill. 151

Production Instrument Co., 1315 S. Wabash Ave., Chicago, Ill.

Reddington, F. B., Co., 112 S. Sangamon St., Chicago, Ill.

Renz, Fred & Son, 7025 83rd St., Glendale, Long Island, N. Y.

Roberts Numbering Machine Co., The, 694-710 Jamaica Ave., Brooklyn, N. Y.

Standard Numbering Machine Co., 563 Fairview Ave., Brooklyn, N. Y.

Star Tool Works, Shuey Bldg., Springfield, O.

Stande Mfg. Co., E. G., 2675 University Ave., St. Paul, Minn.

Veeder-Root, Inc., Hartford, Conn.

Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark, N. J.

***Wetter Numbering Machine Co., Atlantic and Logan Sts., Brooklyn, N. Y. 142**

COUPON PRINTING AND FINISHING MACHINES
See Printing Presses.

COVER DEWARPING MACHINES
See Bookbinding Machinery.

COVER FOLDING AND CUTTING MACHINES
See Bookbinding Machinery.

COVER SCORERS AND GLUERS
See Bookbinding Machinery.

COVERERS (INTERMITTENT)
See Bookbinding Machinery.

COVERING MACHINES (CLOTH, PAPER)
See Bookbinding Machinery.

CREASING AND SCORING MACHINES
See Carton and Paper Box Makers' Machinery.

CURVED PLATE BORING MACHINES
See Stereotypers' Machinery, etc.

CURVED PLATE FINISHING, COOLING, DRYING MACHINES
See Stereotypers' Machinery.

CURVED PLATE FINISHING TOOLS, SADDLES AND SLABS
See Stereotypers' Machinery.

CURVED PLATE POWER PROOF PRESSES
See Proof and Test Presses.

CURVED PLATE ROUTING MACHINES
See Sawing, Trimming, etc.

CURVED PLATE SHAVING MACHINES
See Stereotypers' Machinery.

CUT FILING SYSTEMS
See Cabinets, etc.

CUT SIZING MACHINES
See Sawing, Trimming, etc., Machinery.

CUT STORAGE CABINETS
See Cabinets.

CUT AND TYPE CLEANING COMPOUNDS
See Cleaning Compounds, etc.

CUTTER AND CREASER CHASES
See Chases, etc.

CRIMPING MACHINES

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**

*Rosback, F. P., Co., Box 675, Benton Harbor, Mich.

CUTTING, CREASING AND PERFORATING RULE *A.T.F.*

*American Steel Chase Co., 122 Centre St., New York, N. Y.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**

Atkins, E. C. & Co., Inc., 402 S. Illinois St., Indianapolis, Ind.

Hansen, Alfred, 184 Summer St., Boston, Mass.

Hartnett, R. W. Co., 1025-27 Cherry St., Philadelphia, Pa.

Helmold, J. F. & Bro., 1462 Custer St., Chicago, Ill.

Jacques, John & Son, 93 Webster St., Worcester, Mass.

Simonds Saw & Steel Co., Fitchburg, Mass.

Warren Bros., Inc., 156 Pearl St., Boston, Mass.

*Wesel, F., Mfg. Co., Inc., Scranton, Pa.

CUTTING, CREASING, AND PRINTING PRESSES
See Printing Presses.

CUTTING AND CREASING PRESSES

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**

*Babcock Printing Press Mfg. Co., 38 Pequot Ave., New London, Conn.

*Claybourn Process Corporation, 3713 N. Humboldt Ave., Milwaukee, Wis.

***Cottrell, C. B. & Sons Co., Westerly, R. I. 10**

Gibbs-Brower Co., 401 Broadway, New York, N. Y.

*Griffiths, John Co., Inc., 150 Nassau St., New York, N. Y.

***Harris-Seybold-Potter Co., 4510 E. 71st St., Cleveland, O. 88-89**

Hoe, R., & Co., 138th St. and East River, New York, N. Y. 84-85

Jacques, John, Machine Co., 93 Webster St., Worcester, Mass.

***Meisel Press Mfg. Co., 944 Dorchester Ave., Boston, Mass. 67**

***Miehle Printing Press & Mfg. Co., 14th St. and S. Damen Ave., Chicago, Ill. 77**

*New Era Mfg. Co., 375 11th Ave., Paterson, N. J.

Scott, Walter, & Co., Plainfield, N. J.

*Thompson-National Press Co., Inc., Dean Ave., Franklin, Mass.

***U.P.M.-Kidder Press Co., Dover, N. H. 132**

Willsea Works, The, 1042 University Ave., Rochester, N. Y.

CUTTING MACHINE BLADES OR KNIVES
See Shears, or Cutting and Trimming Machines.

CUTTER KNIFE GUARDS *A.T.F.*

***Challenge Machinery Co., Fulton Ave. and Beech Tree St., Grand Haven, Mich. 21**

CUTTING MACHINE DRIVERS
See Dynamos, etc.

CUTTING PLATES (STEEL)
See Carton and Paper Box Makers' Machinery.

CUTTING RULE BENDERS, CREASERS AND CUTTERS *A.T.F.*

Helmold, J. E., and Bro., Inc., 1462 Custer St., Chicago, Ill.

Springman, Chas. T., Grosse Pointe Park, Mich.

CUTTING STICKS
See Cutting Machines.

CUTTING AND TRIMMING MACHINES, KNIVES, CUTTING STICKS, KNIFE GRINDING MACHINES, AUTOMATIC PAPER CUTTERS, CONTINUOUS TRIMMERS, INTERMITTENT FEED SHEET CUTTERS *A.T.F.*

a. Cutting Machines *c.* Cutting Sticks
b. Cutting Knives *d.* Knife Grinding Machines

Acme Wood Type & Mfg. Co., 61 Beekman St., New York, N. Y.—*c.*

Anderson Knife & Bar Co., 1815 Locust St., Anderson, Ind.

Atkins, E. C., & Co., 402 S. Illinois St., Indianapolis, Ind.—*b.*

Babcock Printing Press Co., 38 Pequot Ave., New London, Conn.—*a.*

Beck Machine Co., Chas., 414 N. 13th St., Philadelphia, Pa.

Blomfelt & Rapp Co., 108 N. Jefferson St., Chicago, Ill.

Boston Saw & Knife Co., 102 Pearl St., Boston, Mass.

Carborundum Co., Buffalo Ave., Niagara Falls, N. Y.

***Challenge Machinery Co., The, Grand Haven, Mich.—*a.* 21**

***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O.—*a.* 63**

Coes & Co., Inc., Loring, 72 Coes St., Worcester, Mass.

Corkpak Co., Inc., The, 250 E. 43rd St., New York, N. Y.—*b.* 145

*Dexter Folder Co., 28 W. 23rd St., New York, N. Y.—*a.*

Dietz Machine Works, 126 Fontain St., Philadelphia, Pa.

Disston, Inc., Henry, & Sons, Delaware Ave. at Unruh St., Philadelphia, Pa.

Doepel, J. E., Co., 621-623 Cherry St., Philadelphia, Pa.—*a.*

Dowd Knife Works, Inc., R. J., 717 2nd St., Beloit, Wis.

Ever Ready Machinists, Inc., 10 Peck Slip, New York, N. Y.—*a.*

Fate-Root-Heath Co., The, 234 High St., Plymouth, O.—*d.*

Hamilton Mfg. Co., Two Rivers, Wis.—*c.*

***Harris-Seybold-Potter Co., Seybold Machine Co., Div., Dayton, O.—*a-b-d.* 88-89**

Hickok, W. O., Mfg. Co., 9th and Cumberland St., Harrisburg, Pa.—*d.*

***Hoe, R., and Co., 138th St. and East River, New York, N. Y. 84-85**

Independent Paper Cutter Co., 704 N. Main St., St. Louis, Mo.

Interstate Machinery Co., 3104 7th Ave., Troy, N. Y.

Jacques, John, & Son, 93 Webster St., Worcester, Mass.—*a.*

Jorson & Carlson Co., Inc., 707 S. Dearborn St., Chicago, Ill.—*b-c.*

Kellet Co., 501 S. Dearborn St., Chicago, Ill.—*d.*

Kelsey Press Co., The, Meridan, Conn.—*a.*

Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y.—*a-b.* 131

Loyd, John Co., 87 Walker St., New York, N. Y.—*b.*

McLauthlin, Geo. T., Co., Inc., 120 Fulton St., Boston, Mass.—*a.*

*Morgans & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.—*a.*

*New Era Mfg. Co., 379 11th Ave., Paterson, N. J.

Ohio Knife Co., Dreman Ave. and B. & O. Tracks, Cincinnati, O.

Pavyer Printing Machine Works, 600 S. Broadway, St. Louis, Mo.—*a.*

Printers' Equipment Mfg. Co., 1408 Adams St., Toledo, O.—*a.*

Rogers, Samuel C., & Co., 191 Dutton Ave., Buffalo, N. Y.—*d.*
Saranac Machine Co., 376 W. Main St., Benton Harbor, Mich
Seybold Machine Co., Div. Harris-Seybold-Potter, Dayton, O.....88-89
Sharp Tool Service Co., 5613 Lake St., Chicago, Ill.—*d.*
*Sheridan Co., T. W. & C. B., 135 Lafayette St., New York, N. Y.—*a.*
Simonds Saw & Steel Co., 470 Main St., Fitchburg, Mass.—*b.*
Simonds-Worden-White Co., Dayton, O.—*b*.....135
Smith & Winchester Mfg. Co., The, South Windham, Conn.
Standard Machinery Co., The, 12 Water St., Mystic, Conn.—*a.*
Thompson Cabinet Co., Ludington, Mich.—*c.*
Wapakoneta Machine Co., The, Wapakoneta, O.—*b.*

CYLINDER BRAKES (ELECTRICAL)
See Dynamos, etc.

CYLINDERS, ETCHED
Alco Gravure, Inc., 52 E. 19th St., New York, N. Y.

CYLINDER PRESS BED LOCKS
See Chases, etc.

CYLINDER PRESS FEEDERS
See Feeders, Folders, etc.

CYLINDER PRESS SEATS
See Chairs, Press Seats and Stools

CYLINDER PRESSES
See Printing Presses.

CYLINDERS (COMPOSING ROOM)
See Proof and Test Presses.

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DAMPENING DEVICES (LITHO)
See Lithographic and Offset Plate Making, etc., Supplies.

DARKROOM EQUIPMENT AND ACCESSORIES
See Lithographic and Offset Plate Making, etc., Supplies.

DATING MACHINES
See Counters.

DAYLIGHT LAMPS
See Cameras.

DECALCOMANIA PRINTING EQUIPMENT
Columbia Printing Machinery Corp., 2 Lafayette St., New York, N. Y.

DECKLING MACHINES
Krause, Karl, U S. Corp., 55-57 Van Dam St., New York, N. Y.....131
Lester & Wasley Co., The, 282 Franklin St., Norwich, Conn.

DEHYDRATING SYSTEMS
See Air and Paper Conditioning Equipment.

DELIVERIES (PRESS, FOLDER, BRONZER, ETC.)
See Feeders, Folders, etc.

DESKS
See Tables, etc.

DEVELOPING INK
See Lithographic and Offset Plate Making, Equipment, Supplies, etc.

DIAGONAL BASE
See Plate Mounting Equipment.

DIAGONAL BLOCK FILLERS
See Plate Mounting Equipment.

DIAGONAL CHASES
See Chases.

DIE BOARDS, LAMINATED
See Carton and Paper Box Makers' Machinery.

DIE CUTTING PRESSES *A.T.F.*
***Harris-Seybold-Potter Co., Seybold Machine Co., Div., Dayton, O.....88-89**
Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y.....131
Logemann Bros. Co., Inc., 3154 W. Burleigh St., Milwaukee, Wis.
Loyd, John, Co., 87 Walker St., New York, N. Y.
***Meisel Press Mfg. Co., 944 Dorchester Ave., Boston, Mass.....67**
*Seybold Machine Co., 813 Washington St., Dayton, O.
*Sheridan, T. W. & C. B., Co., 135 Lafayette St., New York, N. Y.
*Thomson National Press Co., Dean Ave., Franklin, Mass.

DIE CUTTING, PUNCHING, PERFORATING, CUTTING AND SLITTING MACHINES
See Machines for Separate Operations.

DIE HEATERS AND HEAT CONTROLLERS
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.....60A-60B-62-90**
General Electric Co., Schenectady, N. Y.....80-81
*Thomson-National Press Co., Inc., Dean Ave., Franklin, Mass.

DIE OR BINDERS BOARD
See Paper and Board.

DIE PRESSES
See Die Stamping, Presses.

DIE RUBBER
See Carton and Paper Box Makers' Machinery.

DIE STAMPING, EMBOSSING, PALLET AND PLATE PRESSES *A.T.F.*
Barnard, Paul J., 1600 Junction Ave., Racine, Wis.
*Brintnall, H. W. Co., 420 Boyd St., Los Angeles, Calif.
Engravers and Printers Mchy. Co., Jermain Ave., Sag Harbor, L. I., N. Y.
Force, Wm. A. Co., Inc., 105 Worth St., New York, N. Y.
*Fuller, E. C., Co., 28 Reade St., New York, N. Y.
Gane Bros. & Lane, 1335 W. Lake St., Chicago, Ill.
***Harris-Seybold-Potter Co., 4510 East 71st St., Cleveland, O.....88-89**
Hawkins-Wilson Co., 714 Sansom St., Philadelphia, Pa.
Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.
Hoe, R., & Co., 138th St. and East River, New York, N. Y.....84-85
Ideal Stitcher and Mfg. Co., Racine, Wis.
Krause, Karl, U. S. Corp., 55 Van Dam St., New York, N. Y.....131
Kwikprint Co., 605 W. Washington St., Chicago, Ill.
Lawson, E. P., Co., Inc., 424 W. 33rd St., New York, N. Y.
Modern Die & Plate Press Mfg. Co., Inc., 21 Florida Ave., Bellville, Ill.
Pegler, John J., Co., Inc., 609 W. Lake St., Chicago, Ill.
Peerless Roll Leaf Co., 911 New York Ave., Union City, N. J.
Roovers Bros., 3611 14th Ave., Brooklyn, N. Y.
*Sheridan, T. W. & C. B., Co., 135 Lafayette St., New York, N. Y.
Sigwalt Mfg. Co., 2011 N. Lawndale Ave., Chicago, Ill.
Simplex Gold Stamping Press Co., Inc., 425 Fourth Ave., New York, N. Y.
Standard Machinery Co., 13 Water St., Mystic, Conn.
Swaine, F. J., Mfg. Co., 7th and O'Fallon Sts., St. Louis, Mo.
*Thomson-National Press Co., Inc., Dean Ave., Franklin, Mass.
Waldron, John, Corp., River Rd., New Brunswick, N. J.
Young Engineering Works, 2747 High St., Chicago, Ill.

DIRECT ROTARY LITHOGRAPHIC PRESSES
See Printing Presses.

DIRECT PRESSURE MACHINES
See Stereotypers' Machinery.

DISC RULING MACHINES
See Ruling Machines.

DISTRIBUTORS, INK
See Ink Agitators, etc.

DIVIDED GALLEYS
See Galleys

DOUBLE DECK TRUCKS
See Trucks.

DOUBLE HEAD CURVED PLATE SHAVING MACHINES
See Stereotypers' Machinery.

DOUBLE HEAD FLAT PLATE FINISHING SHAVING MACHINES
See Stereotypers' Machinery.

DOUBLE MOTOR PRESS DRIVES
See Dynamos, etc.

DOUBLE SCREW SHAVING MACHINES
See Stereotypers' Machinery.

DRIERS, INK
See Ink.

DRILL SLOTTING MACHINES
See Paper Drilling Machines

DRILLS, PAPER
See Paper Drilling, etc.

DRIVES
See Motors.

DROSS RENOVATORS
See Metal Feeders, etc.

DROSS REPLACEMENT METALS
See Metals.

DRUM CYLINDER PRESSES
See Printing Presses.

DRY COLORS
See Ink.

DRY MAT FORMERS (ELECTRIC)
See Stereotypers' Machinery.

DRY MATS AND DRY MAT HUMIDORS
See Stereotypers' Machinery.

DRYING BOXES OR OVENS (FOR GUMMED OR VARNISHED SHEETS)
See Gluing, Gumming, etc., Machinery.

DRYING CABINETS, RACKS AND TRAYS
See Cabinets.

DRYING RACKS
See Cabinets, etc.

DRYING TABLES, STEAM
See Stereotypers' Machinery.

DUCTOR KNIFE STEEL
See Rotogravure Printing Equipment.

DUCTOR ROLLER CONTROLS
*Craftsman Line-Up Table Corp., 49 River St., Waltham, Mass.

DUMP TRUCKS
See Trucks.

DUMPING TABLES
See Tables.

DUPLEX CHASES
See Chases, etc.

DUPLEX TICKET PRINTING AND FINISHING MACHINES
See Printing Presses.

DUPLICATING MACHINES
See Lithographic and Offset Plate Making, Equipment, Supplies, etc.

DUSTING MACHINES
See Bronzing Machines.

DYNAMOS, MOTORS, PRESS DRIVES AND ELECTRICAL CONTROL EQUIPMENT *A.T.F.*
Including Paper Break Detectors and Web Breakers. For Embossing Heat Controllers see Die Heaters, etc.
Century Electric Co., 1806 Pine St., St. Louis, Mo.
***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O.....63**
Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill.....13
Cushman Electric Co., 69 S. Main St., Concord, N. H.
Cutler-Hammer, Inc., N. 12th St. and W. St. Paul Ave. Milwaukee, Wis.
Emerson Electric Co., 2018 Washington St., St. Louis, Mo.
General Electric Co., The, Schenectady, N. Y.....80-81
Kimble Electric Co., 2011 Hastings St., Chicago, Ill.
Monitor Controller Co., Inc., 51 S. Gay St., Baltimore, Md.
Moore Engineering Corp., 51 Lawrence St., Newark, N. J.
Northwestern Electric Co., 408 S. Hoyne Ave., Chicago, Ill.
Peerless Electric Co., The, 740 W. Market, Warren, O.
Reeves Pulley Co., Columbus, Ind.
Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland, O.
Robbins & Myers Co., Springfield, O.
Reid, William & Co., 537 S. LaSalle St., Chicago, Ill..151
Square D Co., 710 S. 3rd St., Milwaukee, Wis.
Wagner Electric Corp., 6400 Plymouth Ave., St. Louis, Mo.
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.

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ECCENTRIC ACTION CUTTERS AND CREASERS
See Cutting and Creasing Presses.

EGG SHELLING MACHINES
See Pebbling, etc., Machines.

ELECTRIC DIE HEATERS
See Die Heaters.

ELECTRIC HEATING EQUIPMENT STEREOTYPE FURNACE
See Metal Feeders, etc.

ELECTRIC INK DRYERS, OXIDIZERS, AND STATIC ELIMINATORS
See Electric and Gas Heaters.

ELECTRICAL INDICATING AND RECORDING INSTRUMENTS
Cambridge Instrument Co., Inc., 3732 Grand Central Terminal Bldg., New York, N. Y.
General Electric Co., The, Schenectady, N. Y.....80-81

ELECTRIC STEREOTYPE POT HEATERS
See Metal Feeders, etc.

ELECTRIC WELDED STEEL CHASES
See Chases, etc.

ELECTRICAL COUNTERS
See Counters, etc.

ELECTRIC DRIVE AND CONTROL DEVICES
See Dynamos, etc.

ELECTRIC AND GAS HEATERS AND NEUTRALIZERS FOR PRINTING PRESSES *A.T.F.*

*Acme Printing Appliance Co., The, 333 S. Clinton St., Chicago, Ill.

***Brandtjen & Kluge, Inc., 653 Gaultier St., St. Paul, Minn.** **57**

Cannon Electric Development Co., 420 West Ave., 33, Los Angeles, Calif.

***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O.** **63**

***Doyle, The J. E., Co., 310 Lakeside Ave., Cleveland, O.151**

Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.

Hoy Offset and Static Eliminator, 139 E. 3rd St., Cincinnati, O.

Knowlton Co., M. D., 28 Industrial St., Rochester, N. Y.

Liberty Electric Co., 34 W. North St., Indianapolis, Ind.

*Printing Press Parts & Supplies, Inc., 225 High St., Boston, Mass.

Printing Press Extension Delivery Co., 447 W. 40th St., New York, N. Y.

Safety Electric Heater Co., Faribault, Minn.

Simco Corp., The, P. O. Box 5187, Logan, Philadelphia, Pa.

Surface Combustion Co., 2375 Dorr St., Toledo, O.

***U.P.M.-Kidder Press Co., 121 Broadway, Dover, N. H.** **132**

*Utility Heater Co., 239 Centre St., New York, N. Y.

ELECTROTYPE BEARERS
See Roller Bearers, etc.

ELECTROTYPE BLOCKS
See Plate Mounting Equipment

ELECTROTYPE CABINETS
See Cabinets.

ELECTROTYPE CHASES
See Chases, etc.

ELECTROTYPE METALS
See Metals, Metal Cleaners and Fluxes.

ELECTROTYPE SAWS
See Sawing, Trimming, etc., Machinery.

ELECTROTYPERS' EQUIPMENT AND SUPPLIES
See also Stereotypers' and Electrotypers' Equipment and Supplies.

Belmont Smelting Refining Works, 318 Belmont Ave., Brooklyn, N. Y.

Carrom Co., The, 215 Ludington Ave., Ludington, Mich.

*Claybourn Process Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.

Dom Supply Co., G. C., 125 E. Pearl St., Cincinnati, O.

*Griffiths Co., Inc., John, 150 Nassau St., New York, N. Y.

***Cottrell, C. B., & Sons Co., Westerly, R. I.** **10**

Hoe, R., & Co., 138th St. and E. River, New York, N. Y. **84-85**

***Meisel Press Mfg. Co., 944 Dorchester Ave., Boston, Mass.** **111**

***Milwaukee Saw Trimmer Corp., 610 E. Clybourn St., Milwaukee, Wis.** **136**

National Steel & Copper Plate Co., 218 Taafe Pl., Brooklyn, N. Y.

***Ostrander-Seymour Co., 1874 S. 54th Ave., Cicero Sta., Chicago, Ill.** **30**

Reed Roller & Supply Co., Inc., 415-417 Jackson St., San Francisco, Cal.

Royle & Sons, Inc., John, Straight and Essex Sts., Paterson, N. J.

Thomson Cabinet Co., Ludington, Mich.

Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill. **27**

*Wesel Mfg. Co., Inc., F., Poplar St. and Park Pl., Scranton, Pa.

ELECTROTYPERS' MACHINERY DRIVES
See Dynamos, etc.

ELECTROTYPERS' PROOF PRESSES
See Proof and Test Presses.

ELEVATING TRUCKS
See Trucks.

ELROD METAL
See Metals.

EMBOSSING BLOCKS (OR ATTACHMENTS FOR PLATEN PRESSES, ELECTRICAL)
See Die Heaters.

EMBOSSING COMPOUND OR POWDER
See Raised Letter Printing Machines and Powder.

EMBOSSING DIE HEATERS AND HEAT CONTROLLERS
See Die Heaters

EMBOSSING EQUIPMENT, MACHINES OR PRESSES *A.T.F.*
Die Stamping, etc., or Raised Printing Machines and Powder.

Barnard, Paul J., 1600 Junction Ave., Racine, Wis.

Dickinson, C. W., Jr., 321 Cortland St., Belleville, N. J.

Embossograph Process Co., 251 William St., New York, N. Y.

*Fuller, E. C., Co., 28 Reade St., New York, N. Y.

***Harris-Seybold-Potter Co., Seybold Machine Co. Div., Dayton, O.** **88-89**

Hawkins-Wilson Co., Inc., 716 Sansom St., Philadelphia, Pa.

Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. **131**

Nolan Engineering Co., Edw. J., 311 N. Jay St., Rome, N. Y.

Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill. **151**

*Sheridan Co., T. W. & C. B., 135 Lafayette St., New York, N. Y.

Standard Machinery Corp., The, 12 Water St., Mystic, Conn.

*Thomson-National Press Co., Dean Ave., Franklin, Mass.

Young Engineering Co., 2747 High St., Chicago, Ill.

EMBOSSING AND PRINTING PRESSES (LABEL)
See Printing Presses.

EMBOSSING SIZE
See Ink.

END GUMMING DEVICES
See Gluing, Gumming, etc., Machinery.

END SHEET PASTING MACHINES
See Gluing, Gumming, etc., Machinery.

END SHEET AND STRIPPING MACHINES
See Bookbinding Machines, etc.

ENGRAVERS' INKS
See Inks.

ENGRAVERS' PRECISION PRISM TYPE CAMERAS WITH TURN-TABLE
See Cameras.

ENGRAVERS' PROOF PRESSES
See Proof and Test Presses.

ENGRAVERS' TOOLS
See Photoengravers' Equipment.

ENGRAVERS' WOOD

Acme Wood Type & Mfg. Co., 61 Beekman St., New York, N. Y.

The Carrom Co., 215 E. Ludington Ave., Ludington, Mich.

ENVELOPE CUTTERS
See Envelope Making Machinery.

ENVELOPE MAKING MACHINERY
See also Printing Presses.

Ermold, Ed., Co., Inc., 652 Hudson St., New York, N. Y.

Gowdy Mfg. Co., 45 N. Division, Buffalo, N. Y

Harris-Seybold-Potter Co., 4510 E. 71st St., Cleveland, O. **88-89**

International Paper Box Machine Co., Inc., 315 Main St., Nashua, N. H.

Lester & Wasley Co., Inc., The, 282 Franklin St., Norwich, Conn.

Potdevin Machine Co., 1221 38th St., Brooklyn, N. Y.

Smithe, F. I., Machine Co., Inc., 44th St. and 12th Ave., New York, N. Y.

Vierengel Machine Co., Inc., 368 Troutman St., Brooklyn, N. Y.

ENVELOPE PRINTING PRESSES
See Printing Presses.

ETCHING MACHINES

Homstrom, Axel, Drexel Bldg., Philadelphia, Pa.

Johnstone Electric Co., 538 S. Clark St., Chicago, Ill.

Master Etching Machine Co., Inc., Drexel Bldg., Philadelphia, Pa.

***Ostrander-Seymour Co., The, 1874 S. 54th Ave., Cicero Station, Chicago, Ill.** **30**

Robertson, R. R., 400 W. Madison St., Chicago, Ill.

EXPANSION HOOK BLOCKS
See Plate Mounting Systems.

EXPANSION LOCKS
See Chases.

EXTENSION DELIVERIES
See Feeders, etc.

EXTENSION ROLLER TRUCKS
See Roller Bearers, etc.

EYELETTING MACHINES (ATTACHMENTS AND EYELETS) *A.T.F.*

Bates Mfg. Co., The, 18 Central Ave., Orange, N. J.

Brackett Stripping Machine Co., 595 Jackson St., Topeka, Kans.

*Makatag Mfg. Corp., 46 West St., Reading, Mass.

Stimpson & Co., Inc., Edwin B., 70 Franklin Ave., Brooklyn, N. Y.

United Shoe Machinery Corp., 140 Federal St., Boston, Mass.

F

FANFOLDING MACHINES AND PRINTING PRESSES
See Printing Presses.

FEED BOARDS FOR PRESSES *A.T.F.*

*Verrinder, E. A., 827 Alvarado St., Redlands, Cal.

FEED GAUGES (FOR JOB PRESSES)
See Gauge Pins.

FEEDERS, FOLDERS AND DELIVERIES (NEWSPAPER AND WEB PRESS FOLDERS FOR ROTARY BOARD FEEDERS)
See Carton and Paper Box Makers' Machinery.
See Roll Leaf Feeders for Platen Presses.

a. Bronzer Feeders and Deliveries
b. Circular Letter Folders
c. Cylinder Press Feeders
d. Fanfolding Machines
e. Folding Machine Feeders
f. Folding Machines
g. Job Press Feeders
h. Newspaper and Magazine Folders
i. Roll Paper Feeders
j. Ruling Machine Feeders
k. Stitching Machine Feeders
l. Time Table Refolding Machines
m. Specialty Folders

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**—*c-g* **60A-60B-62-90**

Anderson, C. F., & Co., 3225 Calumet Ave., Chicago, Ill.—*e-f-l.*

*Baum, Russell Ernest, 461 8th Ave., New York, N. Y.—*f.*

***Brandtjen & Kluge, Inc., Gaultier Ave., St. Paul, Minn.**—*g* **57**

Brown Folding Machine Co., 18th and German Sts., Erie, Pa.—*d-e-f-h.*

*Chambers Bros. Co., 52nd St. and Media, Philadelphia, Pa.—*e-f.*

***Chandler & Price Co., The, 6000 Carnegie Ave., Cleveland, O.**—*g* **63**

***Christensen Machine Co., The, 100 Fourth Ave., Racine, Wis.** *For all types of sheet-fed machines* **11**

*Cross Paper Feeder Co., 185 Summer St., Boston, Mass.—*c-d.*

*Dexter Folder Co., 28 W. 23rd St., New York, N. Y.—*b-c-d-e-h-k.*

Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.—*j.*

Hollingsworth, William, Machine Co., 227-229 Holliday St., Baltimore, Md.—*a* **116**

*Hudson-Sharpe Machine Co., 1207 Main St., Green Bay, Wis.—*m.*

Liberty Folder Co., The, E. Court and Brooklyn Ave., Sidney, O.—*b-d-f-q.*

*Lindbladh Corp., The, 40 Court St., Boston, Mass.—*i.*

Maxon Automatic Machinery Co., Westerly, R. I.—*a.*

*Mentges Folder Co., The, Sidney, O.—*f.*

***Miehle Printing Press & Mfg. Co., 14th and S. Damen Ave., Chicago, Ill.**—*c* **77**

Nelson, C. B., & Co., 727 S. Dearborn St., Chicago, Ill.—*m.*

Omaha Folding Machine Co., 2009-11 Cuming St., Omaha, Neb.—*h-m.*

Printers Machine Corp., 70 W. 40th St., New York, N. Y. —*m.*

Printing Press Extension Delivery Co., 447 W. 40th St., New York, N. Y.—*Extension deliveries.*

Vierangel Machine Co., The M., 360 Troutman St., Brooklyn, N. Y.—*m.*

Staude Mfg. Co., E. G., 2675 University Ave., St. Paul, Minn.—*f.*

Waldron & Co., Inc., John, River Rd., New Brunswick, N. J.—*e-f.*

FEEDERS, METAL
See Metal Feeders.

FELT BLANKETS
See Blankets.

FELT, STEREO BACKING
See Blankets.

FILE FOLDER PRINTING AND MAKING MACHINES
See Printing Presses.

FILES, NEWSPAPER
See Newspaper Binders.

FINISHING MACHINES FOR LIBRARY BINDERS
See Bookbinding Machinery.

FINISHING PRESSES
See Bookbinding Machinery.

FINISHING SADDLES, SLABS OR TURTLES AND TOOLS
See Stereotypers' Machinery.

FISH GLUE
See Adhesives.

FLANGE BENDERS
See Carton and Paper Box Makers' Machinery.

FLAT BED METAL DECORATING PRESSES
See Printing Presses.

FLAT BED PRINTING PRESSES
See Printing Presses.

FLAT BED WEB PRESSES
See Printing Presses.

FLAT MOULDS, STEREO
See Stereotypers' Machinery.

FLAT SHAVING MACHINES WITH INCLINED BED
See Stereotypers' Machinery.

FLAT TIN BRONZING MACHINES
See Bronzing Machines.

FLEXIBLE GLUE
See Adhesives.

FLOORS (WEAR RESISTING AND VIBRATION ABSORBING)
See Vibration Absorbing and Wear Resisting Floors.

FLY STICKS, FOOT STICKS, SHOOTING STICKS, SIDE STICKS, STAR WHEELS, ETC. *A.T.F.*

***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.** **25**

FLYING PASTERS (FOR HIGH SPEED PASTERS)

***Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill.** **13**
*Kohler Bros., 410 N. Michigan Ave., Chicago, Ill.
Hoe, R., & Co., 138th St. and East River, New York, N. Y. **84-85**
*Monomelt Co., The, Inc., 1611 Polk St., Minneapoiis, Minn.
Wood Newspaper Machinery Corp., 501 Fifth Ave., New York, N. Y. **20**

FOIL (INCLUDING PURE GOLD LEAF IN SHEETS AND ROLLS)

Coe Mfg. Co., William H., Providence, R. I.
Grauert, Inc., R. W., 66 W. Broadway, New York, N. Y.
Griffin, Campbell, Hayes & Walsh, Inc., 50 E. 21st St., New York, N. Y.
Hastings & Co., 817 Filbert St., Philadelphia, Pa.
Kemp Co., W. H., 350 Hudson St., New York, N. Y.
Marshall Son & Co., 226 Purchase St., Boston, Mass.
Nashua Gummed & Coated Paper Co., 44 Franklin, Nashua, N. H.
Peerless Roll Leaf Co., New York Ave., Union City, N. J.
Rauskalb Co., F. W., 160 Franklin St., Medford, Mass.
Swift, M., & Sons, Inc., 10 Love Lane, Hartford, Conn.
Webrung & Bilmeier Co., 3624-30 Lincoln Ave., Chicago, Ill.

FOLDERS (BONE)
See Tools

FOLDER TAPE
See Feeders, Folders, etc.

FOLDING MACHINE COUNTERS
See Counters.

FOLDING MACHINE DRIVES
See Dynamos.

FOLDING MACHINES
See Feeders, Folders, etc.

FOLIO CHASES
See Chases, etc.

FOREMAN'S DESKS
See Tables.

FORM CLAMPS
See Chases, etc.

FORM LIFTS, TABLES AND TRUCKS, MAKE-UP TRUCKS *A.T.F.*

American Publishers Supply, Box 31, West Lynn, Mass. **16-17-18**
*American Steel Chase Co., 122 Centre St., New York, N. Y.
Anderson, C. F., & Co., 3225 Calumet Ave., Chicago, Ill.
Angle Steel Stool Co., 127 Oak St., Plainwell, Mich.
Goss Printing & Press Co., The, 1535 S. Paulina St., Chicago, Ill. ..... **Inside Front Cover-1**
Hoe, R., & Co., Inc., 138th St. at E. River, New York, N. Y. **84-85**
Lewis-Shepard Co., 227 Walnut St., Watertown, Mass.
Morgan Expansion Roller Equipment Truck Co., P. O. Box 216, Hollywood, Cal.
***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill.** **30**
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.** **25**

FORM LOCKING SYSTEMS
See Chases, etc.

FORM RACKS
See Cabinets, etc.

FORWARDING AND CASING-IN MACHINES
See Bookbinding Machinery.

FOUNDATIONS
See Vibration Absorbing Floors, etc.

FOUNDRY CHASES
See Chases, etc.

FOUNDRY TYPE
See Type

FOUNTAINS AND FOUNTAIN DIVIDERS AND RECTIFIERS
See Ink Fountains, etc.

FOUR COLOR PROCESS PRINTING PRESSES
See Printing Presses.

FOUR COLOR SYSTEMS FOR PROOF PRESSES *A.T.F.*

*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.
*Hacker Mfg. Co., 320 S. Honore St., Chicago, Ill.
***Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill.** **27**

FOUR PLATEN STEEL PLATE PRINTING PRESSES
See Die Stamping, etc., Presses.

FOUR CORNER CUTTERS
See Cutting and Trimming Machines.

FRISKET FRAMES, AUTOFRISKETS *A.T.F.*

***Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill.** **27**

FURNACES
See Metal Feeders.

FURNITURE CABINETS
See Cabinets.

FURNITURE MOLDS (FOR LINE CASTING MACHINES)
See Composing and Slug and Type Casting Machines.

FURNITURE AND REGLET (ALUMINUM, IRON, STEEL, WOOD AND ZINC) *A.T.F.*

Acme Wood Type & Mfg. Co., 61 Beekman St., New York, N. Y.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** **60A-60B-62-90**
***Challenge Machinery Co., The, Grand Haven, Mich.** .. **21**
Empire Wood Type Mfg. Co., 252 Water St., New York, N. Y. **151**
Globe-Wernicke Co., The, Cincinnati, O.
Hamilton Mfg. Co., Two Rivers, Wis.
Missouri-Central Type Foundry, Wichita, Kan.
*Morgan & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.
*Nevraumont & Son, Inc., J. R., 243 Vallejo St., San Francisco, Calif.
Padgett Any-Angle Furniture Co., 2019 Bryan St., Dallas, Tex.
Powers Precision Lock-Up Furniture Co., Bayonne, N. J.
***Printing Machinery Co., The, 436 Commercial Sq., Cincinnati, O.** **83**
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.** **25**
Stevenson, Inc., Ashton G., 655 S. Wells St., Chicago, Ill.
Thompson Cabinet Co., Ludington, Mich.
*Wallin, G. E., 807 N. 35th St., Omaha, Neb.

G

GALLEY CABINETS, LABEL HOLDERS AND LOCKS
See Cabinets, etc.

GALLEY RACKS AND STORAGE SYSTEMS
See Cabinets.

GALLEY TRAYS
See Galleys, etc.

GALLEY TRUCKS
See Trucks.

GALLEYS (BRASS AND STEEL GALLEYS, MAILING GALLEYS, GALLEY LABEL HOLDERS AND GALLEY LOCKS) *A.T.F.*

*American Steel Chase Co., 122 Centre St., New York, N. Y.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** **60A-60B-62-90**
Angle Steel Stool Co., 127 Oak St., Plainwell, Mich.
***Challenge Machinery Co., The, Grand Haven, Mich.** .. **21**
Chicago Metal Mfg. Co., 3724 S. Rockwell St., Chicago, Ill.
Eagle Sheet Metal Mfg. Co., 1300 Fletcher St., Chicago, Ill.
Illinois Stamping & Mfg. Co., 220 N. Jefferson St., Chicago, Ill.
Pavyer Printing Machine Works, 600 S. Broadway, St. Louis, Mo.

GANG STITCHERS
See Stitching Machines.

GAS BILL FOLDING MACHINES
See Feeders, Folders, etc.

GAS BURNERS OR HEATERS (FOR PRESSES)
See Electric and Gas Heaters.

GAS INK DRIERS
See Electric and Gas Heaters.

GASOLINE CANS
See Cans.

GATHERER, WIRE STITCHER AND COVERER
See Bookbinding Machinery.

GATHERING MACHINES
See Assembling, etc., Machines.

GATHERING TABLES
See Tables.

GAUGE PINS, GRIPPERS, GUIDES *A.T.F.*

Booten, C. H., & Co., 304 Second Ave., Gallipolis, O.
Casper Gripper Co., The, 357 Bangor Bldg., Cleveland, O.
Clark, E. C., 3630 Bloomington Ave., Minneapolis, Minn.
Grove, Jacob R., Co., 3708 Fulton St., N.W., Washington, D. C.
Megill, The Edward L., Co., 761 Atlantic Ave., Brooklyn, N. Y. **150**
Morgan Expansion Roller Truck Co., P. O. Box 216, Hollywood, Calif.
Stiles, Charles L., 64 Hanford St., Columbus, O.
Strait, H. H., 9510 Milton Ave., Overland, Mo.
Welsh, C. L., Pleasantville, N. J.
Western Roller & Mfg. Co., 615 19th St., Denver, Col.

GAUGES, TESTING INSTRUMENTS *A.T.F.*

a. Paper Strength and Thickness Gauges and Paper Sheet Scales
b. Type Gauges or Computers
c. Type High or Plate Gauges
d. Roller Gauges
e. Durometers
f. Scleroscope

American Publishers Supply, Box 31, West Lynn, Mass. **16-17-18**
Amthor Testing Instrument Co., Inc., 10 Leo Pl., Brooklyn, N. Y.—*a.*
Black Rock Mfg. Co., Bridgeport, Conn.—*d.*
Bobe-Meter Mfg. Co., 1276 W. Third St., Cleveland, O.—*e.* **151**
Brown & Sharpe Mfg. Co., Providence, R. I.—*a.*
***Challenge Machinery Co., The, Grand Haven, Mich.**—*c.* **21**
*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.—*a-c.*
Dust-Less Equipment Co., 1406 Monroe St., N.E., Washington, D. C.—*d.* **126**
Kemper, R. E., North Chatham, N. Y.—*c.*
Memler, Eugene, Box 697, Arcade Bldg., Los Angeles, Calif.—*d.*
Morgan Expansion Roller Truck Co., 6367 Hollywood Blvd., Hollywood, Calif.—*c.*
***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill.**—*c.* **30**
O'Sullivan Linotype Composition Co., Inc., 47 West St., New York, N. Y.
Perkins, B. F., & Son, Inc., Holyoke, Mass.—*a.*
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.**—*b-c.* .. **25**
Shore Instrument and Mfg. Co., The, 90 Van Wyck Ave., Jamaica, N. Y.—*a-b.*
Star Tool Works, Shuey Bldg., Springfield, O.—*b-c.*
Testing Machines, Inc., 458 W. 34th St., New York, N. Y.—*a.*
Zenke, H. C., 8927 120th St., Richmond Hill, N. Y.—*c.*

GEARS, SILENT
See Variable Speed Pulleys.

GILDING BOARDS, PRESSES AND WHEELS
See Bookbinding Machinery.

GLASS TOP REGISTER TABLES
See Line-Up and Register Systems.

GLUE
See Adhesives.

GLUE HEATERS AND POTS *A.T.F.*

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** **60A-60B-62-90**
***Cline Electric & Mfg. Co., 211 W. Wacker Dr., Chicago, Ill.** **13**
Knowlton, M. D., Co., 28 Industrial St., Rochester, N. Y.
Simplex Electric Heating Co., Boston, Mass.
Sta-Warm Electric Co., Ravenna, O.
Surface Combustion Co., 2375 Dorr St., Toledo, O.
Wallace, J. D., & Co., 134-158 S. California Ave., Chicago, Ill.

GLUING, GUMMING, LABELING, LINING, MOUNTING, PASTING, AND COMBINING MACHINERY (INCLUDES DRYING OVENS FOR GUM AND VARNISH) *A.T.F.*

Beloit Iron Works, Beloit, Wis.
Brackett Stripping Machine Co., 505 Jackson St., Topeka, Kans.
Brintnall, H. W., Co., 420 Boyd St., Los Angeles, Calif.
Chambers Bros. Co., 52nd St. and Media, Philadelphia, Pa.
Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill. 13
Cottrell & Sons, C. B., Co., 86 Mechanic St., Westerly, R. I. 10
Dexter Folder Co., 28 W. 23rd St., New York, N. Y.
Ermold, Ed., Co., Inc., 652 Hudson St., New York, N. Y.
Excello Machine Co., 412 Umatilla St., Grand Rapids, Mich.
Fuller, E. C., Co., 28 Reade St., New York, N. Y.
Globe Mfg. Co., 2009 Kinsey St., Philadelphia, Pa.
Hall, Thomas W., Co., Melrose Ave., Stamford, Conn.
Herrick & Cowell Co., The, New Haven, Conn.
Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
Hollingsworth, Wm., 227 N. Holliday St., Baltimore, Md. 116
Instantaneous Glue Converter Co., 3752 Montgomery St., Cincinnati, O.
International Paper Box Machine Co., Inc., 315 Main St., Nashua, N. H.
Knowlton, M. D., Co., 28 Industrial St., Rochester, N. Y.
Lawson, E. P., Co., Inc., 424 W. 33rd St., New York, N. Y.
Mayer Coating Machines Co., Inc., Scottsville Rd., Rochester, N. Y.
Meisel Press Mfg. Co., 944 Dorchester, Boston, Mass. 67
New Era Mfg. Co., Inc., 375 11th Ave., Paterson, N. J.
New Jersey Machine Corp., Willow Ave., at 16th St., Hoboken, N. J.
Pleger, John J., Co., 609 W. Lake St., Chicago, Ill.
Potdevin Machine Co., 1221 38th St., Brooklyn, N. Y.
Rice, Barton & Fales, Inc., 65 Taintor St., Worcester, Mass.
Schroeter, J. H., & Bros., Inc., 223 Central Ave., Atlanta, Ga. 150
Schwensen, Louis C., Co., Inc., 268 41st St., Brooklyn, N. Y.
*Smyth Mfg. Co., The, 9 Sigourney St., Hartford, Conn.
Staude, E. G., Mfg. Co., 2675 W. University Ave., St. Paul Minn.
Stevens, Chas. N., Co., 112 W. Harrison St., Chicago, Ill.
Stokes & Smith Co., Inc., Summerdale Ave., Nr. Roosevelt Blvd., Philadelphia, Pa.
Swift, Geo., W., Jr., 7 Ward St., Bordentown, N. J.
United Metal Seal Co., 257 A St., Boston, Mass.
Vierangel, M., Machine Co., Inc., 360 Troutman St., Brooklyn, N. Y.
Wagner, Chas., Litho Machine Co., 51 Park Ave., Hoboken, N. Y.
Willsea Works, 1042 University Ave., Rochester, N. Y.

GOLD CUSHIONS
See Bookbinding, Machinery, etc.

GOLD INK
See Bronze Powders and Metallic Ink.

GOLD LETTERING AND STAMPING PRESSES
See Die Stamping, etc., Presses.

GOLD ROLLERS
See Rollers.

GOLD RUBBER
See Bookbinding Machinery, etc.

GOLD STAMPING PRESSES
See Die Stamping, etc., Presses.

GORDON PRESS CHASES
See Chases, etc.

GRAINED ALUMINUM, COPPER AND ZINC PLATES
See Aluminum, etc.

GRAINING MACHINES, LITHOGRAPHIC AND OFFSET PLATE
See Lithographic and Offset Plate Making, etc.

GRAVURE PRESSES
See Printing Presses.

GRAVURE ROLLERS
See Rollers.

GREETING CARD FOLDING MACHINES
See Feeders, Folders, etc.

GRINDING EQUIPMENT FOR RUBBER ROLLERS
See Rubber Roller Grinding Equipment.

GRINDING AND GROOVING OF CYLINDERS
See Spiral Grooved Plate Cylinders.

GRINDING MACHINES AND WHEELS, TOOL
See Sawing, Trimming, etc., Machinery.

GRIPPER, PERFORATING AND SCORER FOR JOB PRESSES
See Perforating Punching, etc., Machinery.

GRIPPERS
See Gauge Pins.

GROOVING MACHINES, CARDBOARD
Carton and Paper Box Makers' Machinery.

GUARDS, SAFETY (INCLUDES BELT CUTTER, FEEDER, GEAR, WHEEL GUARDS, ETC.) *A.T.F.*

American Allsafe Co., Inc., 210 Franklin St., Buffalo, N.Y.
American Electric Co., 1033 W. Van Buren St., Chicago, Ill.
***Chandler & Price Co., 6000 Carnegie Ave., Cleveland, O.** 63
***Challenge Machinery Co., The, Grand Haven, Mich.** 21
Modern Die & Plate Press Mfg. Co., 21 Florida Ave., Belleville, Ill.
Positive Safety Mfg. Co., The, 4408 Perkins Ave., Cleveland, O.
Reliable Printing Equipment Co., 357 Bangor Bldg., Cleveland, O.
Surty Mfg. Co., The, 4139 W. Kinzie St., Chicago, Ill.

GUIDES
See Gauge Pins.

GUMMED TAPE MOISTENERS
See Tape Moisteners.

GUMMED TAPE PRINTING MACHINES
See Printing Presses.

GUMMING MACHINES
See Gluing, Gumming, etc., Machinery.

GUMS, LABEL AND ENVELOPE
See Adhesives.

H

HALFTONE SCREENS
See Cameras.

HAND LEVER PAPER CUTTERS
See Cutting and Trimming Machines.

HAND MITERING MACHINES
See Lead, etc., Cutting Machines.

HAND PERFORATORS
See Perforators, Punches, etc.

HAND PLANERS, TYPE HIGH
See Sawing, Trimming, etc., Machinery.

HAND PRESSES
See Printing Presses.

HAND PROOF PRESSES
See Proof and Test Presses.

HAND ROLLERS
See Rollers.

HAND STABBERS
See Bookbinding Machinery.

HAND TRIMMERS (PLATE)
See Shoot Boards.

HANGER LOOPS AND TIN STRIPS
See Tin Mounting Machines, etc.

HEADBANDING AND LINING MACHINES
See Bookbinding Machinery.

HEADING CHASES
See Chases, etc.

HEAT CONTROLLERS
For Stamping Presses—See Die Heaters, etc. Stereotype and Type Metal—See Dynamos. etc., Feeders, etc.

HEATERS, ELECTRICAL, METAL
See Dynamos, etc., and also Stereotypers' Machinery.

HEATERS (GAS FOR PRESSES)
See Electric and Gas Heaters.

HINGED PAPER COVERERS
See Bookbinding Machinery, etc.

HONEYCOMB BASE
See Plate Mounting Equipment.

HOOKS (REGISTER)
See Plate Mounting Equipment.

HOT CURVED FINISHING SADDLES
See Stereotypers' Machinery.

HOT EMBOSSING BLOCKS
See Die Heaters.

HOT EMBOSSING AND STAMPING PRESSES
See Die Stamping, etc., Presses.

HUMIDIFIERS AND HUMIDITY REGISTERING DEVICES
See Air and Paper Conditioning Equipment.

HUMIDORS (DRY MAT)
See Stereotypers' Machinery, etc.

HYDRAULIC LEAD, MAT AND WAX MOULDING PRESSES
See Stereotypers' Machinery, etc.

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IMITATION LEATHER
See Cloth, etc.

IMPOSING FRAMES, SURFACES AND TABLES

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.** 60A-60B-62-90
***Challenge Machinery Co., The, Grand Haven, Mich.** 21
Monarch Engineering & Mfg. Co., Curtis Bay, Baltimore, Md.
Thompson Cabinet Co., Ludington, Mich.

IMPOSING MACHINES
See Line-Up and Register Machines.

IMPOSING SURFACE PROOF PRESSES
See Proof, etc., Presses.

IMPRINTING AND NUMBERING MACHINES
See Printing Presses.

IMPRINTS
See Logotypes, under Type.

INCLINED AND LIFT TRUCKS
See Trucks.

INDEX CARD CUTTERS (PRINTERS AND RULERS)
See Printing Presses.

INDEX CUTTERS AND PRINTERS
See Printing Presses.

INDEX TAB, PASSBOOK, WINDOW AND INDEX CARD CUTTING MACHINES
See Round Corner Cutters, etc.

INDIVIDUALIZING ADDRESSING MACHINES *A.T.F.*
***Challenge Machinery Co., The, Grand Haven, Mich.** 21

INGOT CASTING MACHINES
See Metal Feeders, etc.

INK (LETTERPRESS, LITHOGRAPHIC, OFFSET, PLATE PRINTING, ROTAGRAVURE AND WATER COLOR INKS, DRIERS, REDUCERS, AND VARNISH) *A.T.F.*

a. Driers
b. Letterpress
c. Lithographic and Offset
d. Plate Printing
e. Reducers
f. Rotagravure
g. Varnish
h. Water Color
i. Dry Colors
j. Engravers
k. Specialty

Acheson Ink Co., 142 Skillen St., Buffalo, N. Y.—*a-b-c-j.*
Acme Printing Ink Co., 1315 Congress St., Chicago, Ill.—*b-c.*
Auld, Hampton, Inc., 104-106 Verona Ave., Newark, N. J.—*a-b-c-g-"bodygum."*
Binney & Smith Co., 31 E. 42nd St., New York, N. Y.—*b.*
Buckie Printers Ink Co., 714-716 S. Clark St., Chicago, Ill.—*a-b-c.*
Braden-Sutphin Ink Co., The, 1736 E. 22nd St., Cleveland, O.—*a-b-c-e-g.* 22
Carlson, John P., Inc., 420 Carroll St., Brooklyn, N. Y.—*a-b-c-g-h.*
Crescent Ink & Color Co., of Pa., 464 N. Fifth St., Philadelphia, Pa.—*a-b-c-g.*
California Ink Co., 545 Sansome St., San Francisco, Calif.—*b-c.*
Consolidated Printing Ink Co., 431 N. Griggs St., St. Paul, Minn.—*b-c.*
Driscoll & Co., Martin, 610 Federal St., Chicago, Ill.—*b-c.*
***Doyle, The J. E., Co., 310 Lakeside Ave., Cleveland, O.**—*a-e.* 151
Flint Ink Co., Howard, 2545 Scotten Ave., Detroit, Mich.—*b-c-g-h.* 141
Gebhard Bros., 328 Woodward Ave., Detroit, Mich.—*b.*
General Printing Ink Co., 100 Sixth Ave., New York, N. Y. 64
George H. Morrill Co., Div.,—*a-b-c-g.*
American Printing Ink Co., Div.—*b-c-f.*
Eagle Printing Ink Co. Div.—*b-c.*
Fuchs & Lang Mfg. Co. Div.—*b-c.*
Hellmuth, Inc., Charles, 154 W. 18th St., New York, N. Y.—*b-c.*
Sigmund-Ullman Div.—*a-b-c-g-h.*
Frank H. Stevens Co. Div.—*b-c.*
Sun Chemical & Color Co. Div.—*i.*
Herrick, Wm. C., Ink Co., 325 W. 34th St., New York, N. Y.—*a-b-c-g-h-k.* 150
Hill-Hentschel Co., 301 S. Vandeventer St., St. Louis, Mo.—*a-b-c-g.*
Hilo Varnish Corp., Stewart Ave., Brooklyn, N. Y.—*g.*
Horn Co., Inc., A. C., 43-42 Tenth St., Long Island City, N. Y.—*b-g.*
International Printing Ink Corp., 75 Varick St., New York, N. Y.—*a-b-c-d-e-f-g-h-i-j-k.* 72-73
Huber, J. M., Inc., 460 W. 34th St., New York, N. Y.—*a-b-c-d-f-g.* 29
Indiana Chemical & Mfg. Co., 23 E. 26th St., New York, N. Y.—*a-e-g.*
Johnson, Charles Eneu, & Co., 10th and Lombard St., Philadelphia, Pa.—*a-b-c-f-g-i-k.*

Johnson-King Co., 709 W. 49th Pl., Chicago, Ill.—*a-b-c-d-f-g.*
Kienle & Co., 33 Nassau Ave., Brooklyn, N. Y.—*b-c.*
Kohl & Madden Printing Ink Co., 731 Plymouth Ct., Chicago, Ill.—*b.*
Levey Co., Inc., Frederick H., 59 Beekman St., New York, N. Y.—*f*..... **26**
Mayer, Robt., Co., Inc., 1107 Grand St., Hoboken, N. J.—*b-c-g.*
Murphy Varnish Co., 224 McWhorter St., Newark, N. J.—*g.*
O'Brien Printing Ink Co., Inc., 35 St. Clair St., Dayton, O.—*b.*
Pacific Printing Ink Co., 416 Jackson St., San Francisco, Calif.—*a-b-c-d-e.*
Palmer & Co., Homer W., 1819 Carroll Ave., Chicago, Ill.—*a-b-c-e-g.*
Photo Litho Plate Graining Co., Inc., 1207 S. Highland Ave., Baltimore, Md.—*c.*
Prescott Co., H. S., 470 Atlantic Ave., Boston, Mass.—*b-c.*
Robert's, Lewis, Inc., 72 Union St., Newark, N. J.—*a-b-c-g-h.*
Roosen, H. D., Co., Foot of 20th and 21st St., Brooklyn, N. Y.—*b-c-f-h.*
Schwarm & Jacobus Co., The, 1216-1226 Jackson St., Cincinnati, O.—*a-b-c.*
Senefelder Co., The, Inc., 32 Greene St., New York, N. Y.—*b-c-g.*
Siebold, J. H. & B. G., Inc., 47 Watts St., New York, N. Y.—*b-c-h-k.*
Sinclair & Carroll Co., Inc., 591 Eleventh Ave., New York, N. Y.—*a-b-c-g-h.*
Sinclair & Valentine Co., 11 St. Clair Pl., New York, N. Y.—*a-b-c-g-f-k.*
Sleight Metallic Ink Co., Inc., 538 N. Third St., Philadelphia, Pa.—*a-b-c-d.*
Standard Printing Ink Co., 1644 Providence St., Cincinnati, O.—*a-b-c-d-g-k.*
Superior Printing Ink Co., 295 Lafayette St., New York, N. Y.—*b-c.*
Triangle Ink & Color Co., Inc., 26 Front St., Brooklyn, N. Y.—*a-b-c.*
U. S. Bronze Powder Works, Inc., 220 W. 42nd St., New York, N. Y.—*e-g.*
Wallace & Tiernan Products, Inc., 11 Mill St., Belleville, N. J.—*b-h.*
Winslow Ink Corporation, 124 White St., New York, N. Y.—*a-b-c.*

INK AGITATORS, DISTRIBUTORS, Etc. *A.T.F.*
Acme Multicolor Co., 117 N. Wells St., Chicago, Ill.
*Acme Printing Appliance Co., The, 333 S. Clinton St., Chicago, Ill.
***Challenge Machinery Co., The, Grand Haven, Mich.** **21**
***Doyle, The J. E., Co., 310 Lakeside Ave., N.W., Cleveland, O.**.....**151**
*Ortleb Corp., 2513 Baldwin St., St. Louis, Mo.
Read Machinery Co., Inc., York, Pa.
Weldon, C. F., Geneva St., Lake Geneva, Wis.

INK CABINETS
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INK FOUNTAINS, FOUNTAIN DIVIDERS, FOUNTAIN KNIVES, FOUNTAIN RECTIFIERS, INK VIBRATORS. *A.T.F.*
Acme Printing Appliances Co., 331-333 S. Clinton St., Chicago, Ill.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**.....**60A-60B-62-90**
***Challenge Machinery Co., Inc., Fulton and Beech Tree Sts., Grand Haven, Mich.**..... **21**
***Chandler & Price Co., The, 6000 Carnegie Ave., S.E., Cleveland, O.**..... **63**
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Hoe, R., & Co., Inc., 138th St. and East River, New York, N. Y......**84-85**
Horton Mfg. Co., 3008 University Ave., Minneapolis, Minn.
*Miller Printing Machinery Co., 1101-1107 Reedsdale St., Pittsburgh, Pa.
Page, Robert R., 225 E. 24th St., New York, N. Y.
Rathbun & Bird Co., 83-87 Grand, New York, N. Y.
Siebold, J. H. & G. B., Inc., 47-49 Watts St., New York, N. Y.
Stephens, Sam'l & Wickersham Quoin Co., Inc., 174 High St., Boston, Mass.
*Thomson-National Press Co., Inc., Dean Ave., Franklin, Mass.
***Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill.**..... **27**

INK KNIVES
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INK MILLS, MIXERS AND SLABS *A.T.F.*
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Day Co., J. H., 1144 Harrison, Cincinnati, O.
Excello Machine Co., 412 Umatilla St., Grand Rapids, Mich.
General Printing Ink Co., Rutherford Machinery Div., 100 Varick St., New York, N. Y.
Kent Machine Works, 37 Gold St., Brooklyn, N. Y.
Read Machinery Co., Inc., York, Pa.
Ross & Son Co., Inc., Charles, 148 Classon Ave., Brooklyn, N. Y.
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See Pumps.

INK SOLVENT
See Cleaning Compounds.

INK VIBRATORS
See Ink Fountains, etc.

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*Hacker Mfg. Co., 320 S. Honore St., Chicago, Ill.
***Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill.**..... **27**

INSERTING MACHINES AND MAILING MACHINES
***Christensen Machine Co., The, 100 Fourth St., Racine, Wis.**..... **11**
*Dexter Folder Co., 28 W. 23rd St., New York, N. Y.
*Sheridan, T. W. & C. B., Co., 135 Lafayette St., New York, N. Y.

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See Feeders, Folders, etc.

INTAGLIO PRINTING EQUIPMENT
See Rotogravure Printing Machinery, Printing Presses.

INTERLOCKING PAGE FRAMES
See Chases, etc.

INTERTYPE METAL
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IRON FURNITURE
See Furniture and Reglets.

IRON GROOVED BLOCKS
See Plate Mounting Equipment.

IRON IMPOSING TABLES AND SURFACES
See Imposing Frames, etc.

IRON NEWSPAPER BASES
See Plate Mounting Equipment.

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JAPAN DRYERS
See Ink.

JIG SAWING AND DRILLING MACHINES AND BLADES
See Sawing, Trimming, etc., Machinery.

JOB BACKING MACHINES
See Bookbinding Machinery.

JOB FOLDERS
See Feeders, Folders, etc.

JOB LOCKS
See Chases.

JOB PRESS CHASES
See Chases, etc.

JOB PRESS FEEDERS
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JOB PRESSES
See Printing Presses.

JOB STICKS
See Composing Make-Up Rules and Sticks.

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***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**.....**60A-60B-62-90**
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*Southworth Machine Co., 30 Warren Ave., Portland, Me.
Stolp-Gore Company, 710 W. Jackson Blvd., Chicago, Ill.
Universal Jogger Company, Inc., 322 S. Fourth St., Minneapolis, Minn.

JOGGING MACHINES
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y......**131**
*Southworth Machine Co., 30 Warren Ave., Portland, Me.
Universal Jogger Co., Inc., 322 S. Fourth St., Minneapolis, Minn.

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KEYS AND QUOINS
See Chases.

KNIFE GRINDING MACHINES
See Cutting and Trimming Machines, etc.

KNIFE GUARDS
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KNIVES (INK AND MAKEREADY OR OVERLAY KNIVES FOR BOOKBINDERS' CUTTING AND PARING KNIVES *A.T.F.*
See Bookbinding Machinery; For Cutting Machine Knives, see Cutting and Trimming Machines; For Ink Fountains, see Ink Fountains.
Bolton & Son, Inc., John W., Lawrence, Mass.
Coes Co., Loring, 72 Coes St., Worcester, Mass.
Disston & Sons, Henry, Delaware and Unruh, Philadelphia, Pa.
Dowd Knife Works, R. J., 717 Second St., Beloit, Wis.
Mid-West Gauge Co., 222 N. Wells St., Room 1921, Chicago, Ill.
*Robertson, R. R., 400 W. Madison Ave., Chicago, Ill.
*Seybold Machine Co., 813 Washington St., Dayton, O.
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*Fuller, E. C., Co., Inc., 28 Reade St., New York, N. Y.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y......**131**
National Bundle Tyer Co., Inc., 24-30 W. Adrian St., Blissfield, Mich.
*Smyth Co., Jos. E., 343 S. Dearborn St., Chicago, Ill.
Waldron Corp., John, River Rd., New Brunswick, N. J.
Ward & McLean, 91 Main St., Lockport, N. Y.

L

LABEL CUTTING MACHINES
See Cutting and Trimming Machines.

LABEL AND ENVELOPE GUMS
See Adhesives.

LABEL HOLDERS, GALLEYS
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LABEL PASTING MAILERS
See Mailers and Mailing Machines.

LABELING AND LABEL GUMMING MACHINES
See Gluing, Gumming, etc., Machinery.

LABEL PRINTING, EMBOSSING AND FINISHING MACHINES
See Printing Presses.

LABOR SAVING FURNITURE
See Furniture, etc.

LADLES AND SKIMMERS
See Stereotypers' Machinery, etc.

LAMPS FOR PHOTOENGRAVERS
See Photoengravers' Equipment and Supplies

LEAD AND MAT MOULDING PRESSES
See Stereotypers' Machinery, etc.

LEAD, RULE AND SLUG CASTING MACHINES
See Composing and Slug and Type Casting Machines. *A.T.F.*

LEAD TYPE TRUCKS
See Trucks.

LEAD, RULE AND SLUG CUTTING AND MITERING MACHINES *A.T.F.*
See Sawing and Trimming, etc., Machinery.
*American Steel Chase Co., 122 Centre St., New York, N. Y.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**.....**60A-60B-62-90**
Craftsmen Machinery Co., 307 Atlantic Ave., Boston, Mass......**2-143**
Hammond Machinery Builders, Inc., 1600 N. Douglas Ave., Kalamazoo, Mich.
*Miller Printing Machinery Co., 1117 Reedsdale Ave., Pittsburgh, Pa.
Missouri-Central Type Foundry, 703 E. Murdock Ave., Wichita, Kan.
***Mohr Lino-Saw Co., 609 W. Lake St., Chicago, Ill.**... **12**
Nelson, C. B., & Co., 727 S. Dearborn St., Chicago, Ill.
Pavyer Printing Machine Works, 600 S. Broadway, St. Louis, Mo.
Printers' Equipment Mfg. Co., 1408 Adams St., Toledo, O.
*Richards, J. A., Co., 903 N. Pitcher St., Kalamazoo, Mich.
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill.**..... **25**
Sypher-Arcon Co., 1524 Fernwood Ave., Toledo, O.

LEADS AND RULE (LEADS, METAL RULE, QUADS, SLUGS AND SPACES) *A.T.F.*

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*American Steel Chase Co., 122 Centre St., New York, N Y..
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**
Baltimore Type & Composition Corp., 15-17 S. Frederick St., Baltimore, Md.
Bauer Type Foundry, Inc., The, 235 E. 45th St., New York, N. Y. 115
Griswold, William, 122 Front St., San Francisco, Calif.
Ludwig-Duell Co., 30 Beekman St., New York, N. Y.
MacKenzie & Harris, Inc, 659 Folsom St., San Francisco, Calif.
***Margach Mfg. Co., Inc., 213 Centre St., New York, N. Y. 111**
Missouri-Central Foundry, 703 E. Murdock Ave., Wichita, Kan.
Pacific Typesetting & Type Foundry Co., Inc., 442 Sansome St., San Francisco, Calif.
Pittsburgh Monotype Comp. Co., 401 Mfrs. Bldg., Pittsburgh, Pa.
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Printers Supply Service, 719 S. Dearborn St., Chicago, Ill.
Queen City Linotyping Co., Inc., 164 Ellicott St., Buffalo, N. Y.
Rulex Typesetting Co., 549 S. Wells St., Chicago, Ill.
Stevenson, Inc., Ashton G., 655 S. Wells St., Chicago, Ill.
Stewart, Don, Co., 423 Sacramento St., Calif.
Taylor, W. E., Co., 209 W. 38th St., New York, N. Y.

LEAF ATTACHMENTS FOR STAMPING PRESSES
See Die Stamping Presses.

LEAF STAMPING PRESSES
See Die Stamping Presses.

LEATHER AND LEATHER SUBSTITUTES
See Cloth.

LEATHER PARING MACHINES
See Bookbinding Machinery.

LEATHER ROLLERS
See Rollers.

LENSES AND PRISMS
See Cameras.

LETTERBOARDS
See Cabinets.

LETTERING MACHINES
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LEVELING OR SMASHING MACHINES
See Bookbinding Machinery.

LEVER PAPER CUTTERS
See Cutting and Trimming Machines, etc.

LIBRARY BOOK FINISHING MACHINES
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LIBRARY PASTE
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LIFT TRUCKS
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LIFTS
See Paper Lifts.

LINE CASTING MACHINES
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LINE GAUGES
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LINE-UP AND REGISTER MACHINES, SYSTEMS AND TABLES
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**
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Premier Register Table Co., Inc., 170 Summer St., Boston, Mass.
***Rouse, H. B., & Co., 2214 Ward St., Chicago, Ill. 25**
Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

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See Bookbinding Machinery.

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o. Printing Frames
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r. Stick-up Sheets
s. Stones and Stone Grinders
t. Shading Machines and Mediums
u. Supplies
v. Transfer Paper
w. Transfer Presses
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Agfa-Ansco Corporation, Binghamton, N. Y.—*f-k.*
American Shading Machine Co., Inc., 800 Prospect Ave., Buffalo, N. Y.—*t.*
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Cavrichi Polishing Machine Co., 125 Water St., Quincy, Mass.—*s.*
Cramer, G., Dry Plate Co., Lemp and Shenandoah Ave., St. Louis, Mo.—*k.*
Dorn, G. C., Supply Co., 125 E. Pearl St., Cincinnati, O.—*a-u.*
Erkenbrach Co., George A., 143 Liberty St., New York, N. Y.—*f-k.*
Eureka Photo Mechanical Equip., Inc., 350 W. 31st St., New York, N. Y.—*m.*
Gegenheimer, Wm., Inc., 78 Roebling St., Brooklyn, N. Y.—*p.*
General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.—See Rutherford Machinery Co., Div.
Haloid Co., The, 6 Haloid St., Rochester, N. Y.—*f-k.*
Hammer Dry Plate Co., 3547 Ohio Ave., St. Louis, Mo.—*f-k.*

Hoe, R., & Co., 138th St. and E. River, New York, N. Y.—*n*..... **84-85**
International Press Cleaner & Mfg. Co., Inc., 1265 W. 2nd St., Cleveland, O.—*p*.
Johnson Photo Litho Co., 318 W. Randolph St., Chicago, Ill.—*n*.
Korn, Wm., Inc., 120 Centre St., New York, N. Y.—*t-u*.
La Motte Chemical Products Co., 438 Light St., Baltimore, Md.—*a-u*.
***Lanston Monotype Machine Co., 24th at Locust St., Philadelphia, Pa.**—*j-h-m-y*..... **15**
Litho Chemical & Supply Co., 63 Park Row, New York, N. Y.—*a-k-u*.
Miles Machinery Co., 18 E. 16th St., New York, N. Y. —*j-y*.
Monson & Son, Inc., Thormod, 730 N. Franklin St., Chicago, Ill.—*Transfers*.
National Litho Plate Co., The, 35 Meadow St., Brooklyn, N. Y.—*w*.
***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill.**—*j-n-u*..... **30**
Parker Photo-lith Preparations, 225 E. 44th St., New York, N. Y.—*c*.
Photo Litho Plate Graining Co., Inc., 1207 S. Highland Ave., Baltimore, Md.—*a-u*.
Philadelphia Felt Co., Wingohocking and O Sts., Frankford, Philadelphia, Pa.—*i*.
Pitman Co., Harold M., 51st Ave. and 33rd St., Cicero, Ill.—*c*.
Polygraphic Co. of America, 310 E. 45th St., New York, N. Y.—*f-l*.
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y.—*a-b-i-u*.
*Robertson, R. R., 400 W. Madison Ave., Chicago, Ill.—*c-d-e-h-j-o-q-x-y*.
Rogers Isinglass & Glue Co., 210 Eastern Ave., Gloucester, Mass.—*u*.
Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.—*g-j-m-n-w-y*.
Senefelder Co., Inc., 32-34 Greene St., New York, N. Y.—*a-i-s-u-v*.
Siebold, J. H. and G. B., Inc., 47 Watts St., New York, N. Y.—*i*.
Sweigard Ideal Co., 6122 N. 21st St., Philadelphia, Pa.—*o*.
Teaneck Chemical Works, Teaneck, N. J.—*a*.
Tintograph Co., 53 Park Row, New York, N. Y.—*t*.
Urachrom Co., Teaneck, N. J.—*u*.
*Wesel, F., Mfg. Co., Scranton, Pa.—*d-e-j-m-o-y*.
Wagner, Charles, Litho Machinery Co., Inc., 51-55 Park Ave., Hoboken, N. J.—*b-j*.
Zarkin Machine Co., Inc., 365 Cherry St., New York, N. Y.—*j-n-o*.

LITHOGRAPHIC ROLLERS
See Rollers.

LITHOGRAPHIC RULING MACHINES
See Lithographic and Offset Plate Making Equipment and Supplies.

LOCKS, STEEL
See Cabinets, etc.

LOCK-UP TABLES
See Imposing Frames, etc.

LOCK-UP WRENCHES
See Chases.

LOCK-UPS
See Chases.

LOGOTYPES OR IMPRINTS
See Type.

LOOPING, KNOTTING AND STRINGING MACHINES
See Knotting, etc., Machines.

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Tenacity Mfg. Co., The, Hosea and Cooper, Lockland, O.

LOW SLUG ATTACHMENT (FOR SAWING MACHINES)
See Sawing, Trimming, etc., Machinery.

LOW SLUG CUTTER, HAND
See Lead Rule and Slug Cutting and Mitering Machines. Also see Sawing, Trimming, Machinery.

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Stewart-Warner Corp., 1826 Diversey Parkway, Chicago, Ill.

LUDLOW METAL
See Metals.

LUNCH COUNTER AND RESTAURANT CHECK PRINTING AND FINISHING MACHINES
See Printing Presses.

M

MACERATING MACHINES
Blomfeldt & Rapp Co., 108 N. Jefferson St., Chicago, Ill.

MACHINE BASES
See Vibration Absorbing, etc.

MACHINE GUM
See Adhesives.

MACHINE TENDERS' AND MACHINISTS' WORK BENCHES
See Tables.

MAGAZINE CABINETS OR RACKS
See Cabinets.

MAGAZINE MAILING FOLDERS
See Feeders, Folders, etc.

MAGAZINE PRINTING AND FINISHING PRESSES
See Printing Presses.

MAGAZINE ROTARY PRESSES WITH FOLDERS
See Printing Presses.

MAGAZINE SHEET FEED PRESSES WITH FEEDERS
See Printing Presses.

MAGAZINE WRAPPER PRINTING AND WRAPPING MACHINES
See Mailers and Mailing Machines.

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Hardy, F. A., 10 S. Wabash Ave., Chicago, Ill.
Lancaster Lens Co., The, Lancaster, O.
Ortleb Machinery Co., 114 N. Third St., St. Louis, Mo.
Page, Robert R., 225-227 E. 24th St., New York, N. Y.
Safety Equipment Service Co., The, 1228 St. Clair Ave., Cleveland, O.
Sellstrom Mfg. Co., 344 N.Ogden Ave., Chicago, Ill.
Spencer Optical Co., Inc., 141 Fulton St., New York, N. Y.
Williams, Browne & Earle, Inc., 918 Chestnut St., Philadelphia, Pa.
Zeiss, Inc., Carl, 485 Fifth Ave., New York, N. Y.

MAILING GALLEYS
See Galleys.

MAILERS, MAILING MACHINES AND MAILING STRIP POINTERS *A.T.F.*
Anderson & Co., C. F., 3225 Calumet Ave., Chicago, Ill.
***Challenge Machinery Co., The, Grand Haven, Mich.**... **21**
Cheshire Mailing Machines, 1016 N. Dearborn St., Chicago, Ill.
Dick's Patent Mailer, 137 W. Tupper St., Buffalo, N. Y.
Multipost Company, 51 Center Park, Rochester, N. Y.
***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill**..... **30**
Vierangel Machine Co., The M., 360 Troutman St., Brooklyn, N. Y.
Wing's Sons, Chauncey, 78 Pierce St., Greenfield, Mass.

MAILING MACHINE PASTE
See Adhesives.

MAILING PASTE POTS
See Glue Heaters and Pots.

MAILING TABLES
See Tables.

MAKE-READY PASTE
See Adhesives.

MAKE-READY TABLES
See Tables

MAKE-UP MACHINES
See Line-Up, etc., Machines.

MAKE-UP MAN'S CUTTER
See Lead, etc.

MAKE-UP RULES
See Composing and Make-Up Rules and Sticks.

MAKE-UP TABLES
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MAKE-UP TRUCKS
See Form Lifts, etc.

MALLETS
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MAMMOTH IRON FURNITURE
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MARK-OUT TABLES
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***Matrix Contrast Corp., Empire State Bldg., New York, N. Y.**..... **38**

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MATRIX PARTING POWDER
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MATRIX PASTE
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MATRIX RESHAPER
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MATRIX ROLLING MACHINES
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MATRIX SCORCHERS
See Stereotypers' Machinery.

MATRIX SHEARS
See Shears

MATRIX TISSUE HOLDERS
See Stereotypers' Machinery.

MECHANICAL OVERLAYS
See Overlays.

METAL
See Metals, Metal Cleaners and Fluxes.

METAL BEVELING MACHINES
Dietz Machine Works, 126 W. Fontaine St., Philadelphia, Pa.
*Elgin Bending Machine Co., Elgin, Ill.
***Hoe, R. & Co., 138th St. and East River, New York, N. Y.**..... **84-85**
***Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Sta., Chicago, Ill.**..... **30**
*Richards, J. A., Co., 903 N. Pitcher St., Kalamazoo, Mich.
Royle & Sons, John, Inc., Straight and Essex Sts., Paterson, N. J.
Wesel, F. Mfg. Co., Scranton, Pa.

METAL CLEANER AND FLUX
See Metals.

METAL COATING
See Foil.

METAL DECORATING PRESSES
See Printing Presses.

METAL DROSS SIFTERS
See Stereotypers' Machinery.

METAL DUSTING MACHINES
See Lithographic and Offset Plate Making Equipment and Supplies.

METAL EDGING MACHINES
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METAL FEEDERS, FURNACES, INGOT CASTERS, INGOT MOLDS, MELTING POTS, DROSS AND METAL RENOVATORS, STEREOTYPE POT HEATERS, THERMOMETERS *A.T.F.*

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
*Automatic Furnace Co., 112 Charlton St., New York, N. Y.
Brown Instrument Co., Wayne and Roberts Aves., Philadelphia, Pa.
Central Machine Works, 437 S. Senate Ave., Indianapolis, Ind.
Channing, Alfred W., 188 Tioga Drive, St. Albans, N. Y.
Coffing-Hoist Co., 313 E. Van Buren St., Danville, Ill.
Duplex Printing Press Co., Battle Creek, Mich. **14**
Eagle-Picher Sales Co., 4401 S. Western Ave., Chicago, Ill.
Ensign-Reynolds, Inc., 4 Irving Place, New York, N. Y. —*Immersion Metal Melting.*
Gardiner Metal Company, 2514 W. 48th Place, Chicago, Ill.
Goss Printing Press Co., The, 1535 S. Paulina Ave., Chicago, Ill. ..... **Inside Front Cover-1**
Hoe, R., & Co., Inc., 138th St. at East River, New York, N. Y. **84-85**
Illinois Testing Laboratories, Inc., 420 LaSalle St., Chicago, Ill. **144**
Independent Electric Machinery Co., 300 S. W. Blvd., Kansas City, Mo.
Indiana Chemical & Mfg. Co., 23 E. 26th St., New York, N. Y.
***Intertype Corp., 360 Furman St., Brooklyn, N. Y.** ..... **Outside Back Cover**
Kemp, C. M., Mfg. Co., The, 405 Oliver St., Baltimore, Md. **116-A**
Margach Mfg. Co., Inc., 213 Centre St., New York, N. Y. **111**
***Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y.** **53**
Mishawaka Industrial Instrument Mfg. Co., 936 Washington Ave., Mishawaka, Ind.
Missouri Central Type Foundry, 701 E. Murdock Ave., Wichita, Kans.
Modern Die & Plate Press Mfg. Co., 21 Florida Ave., Belleville, Ill.
Monarch Engineering & Mfg. Co., The, Curtis Bay, Md.
*Monomelt Co., Inc., The, 1611 Polk St., Minneapolis, Minn.
New York Blower Co., 3155 Shields Ave., Chicago, Ill.
Nolan, Edw. J., Engineering Co., 31 N. Jay St., Rome, N.Y.
Partlow Corp., The, 2 Campion Rd., New Hartford (suburb of Utica), N. Y.
Shaw Machine & Tool Co., 1151 Temple St., Los Angeles, Calif.
Stevenson, Ashton G., Inc., 655 S. Wells St., Chicago, Ill.
Struthers, Dunn, Inc., 139 N. Juniper St., Philadelphia, Pa.
Surface Combustion Co., Inc., 2375 Dorr St., Toledo, O.
Topp Engineering Co., 1215 W. 84th Pl., Los Angeles, Cal.
Zellner Foundry Co., The, 2088 Scranton Rd., Cleveland, Ohio.

METAL FURNITURE
See Furniture and Reglet.

METAL GALLEY CABINETS
See Cabinets.

METAL IMPOSING SURFACES
See Imposing Frames, Surfaces and Tables

METAL LADLES
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METAL LEAF
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METAL RULE
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METAL SCOOPS
See Trucks.

METAL SKIMMERS
See Stereotypers' Machinery.

METAL STORAGE EQUIPMENT
See Cabinets, Trucks.

METAL TRUCKS
See Trucks.

METALS, METAL CLEANERS AND FLUXES

Ajax Metal Co., Inc., 46 Richmond St., Philadelphia, Pa.
American Publishers Supply, Box 31, West Lynn, Mass. **16-17-18**
Belmont Smelting & Refining Works, Inc., 318 Belmont Ave., Brooklyn, N. Y.
Blatchford, E. W., Co., 63 Park Row, New York, N. Y. .. **124**
Division Lead Co., 836 W. Kinzie St., Chicago, Ill.
Eagle-Pitcher Sales Co., 4401 S. Western Ave., Chicago, Ill.
Eastern Smelting & Refining Co., 107-109 Brookline St., Boston, Mass.
Empire Metal Co., 820 E. Water St., Syracuse, N. Y.
Federated Metals Corp., 600 W. 41st St., Chicago, Ill.
Gardiner Metal Co., 2514 W. 48th Place, Chicago, Ill.
Hierts, Theo., Metal Co., Inc, 8011 Alaska Ave., St. Louis, Mo.
Imperial Type Metal Co., Chicago, New York, Philadelphia, Los Angeles **31**
Merchant & Evans Co., 2035 Washington Ave., Philadelphia, Pa.
Metals Refining Co., 865 Summer Blvd., Hammond, Ind.
Monarch Engineering & Mfg. Co., The, Curtis Bay, Baltimore, Md.
Nassau Smelting & Refining Works, 50 Church St., New York, N. Y.
National Lead Co., 135 Marshall St., Brooklyn, N. Y.
North American Smelting Co., Inc., 9th and Thompson Sts., Philadelphia, Pa.
Northwestern Metal Mfg. Co., 1328 N. 2nd St., Minneapolis, Minn.
Perfection Type, Inc., 141 E. 5th St., St. Paul, Minn.
Philadelphia Thermometer Co., 915 Filbert St., Philadelphia, Pa.
Pittsburgh White Metal Co., Inc., Pittsburgh, Pa., and New York, N. Y.
Rex Metal Works, 117 Spokane St., Seattle, Wash.
*Richards Co., Inc., 377 Commercial, Boston, Mass.
Syracuse Smelting Works, 147 Jewell St., Brooklyn, N. Y.
Tryon, Clyde B., 402-410 S. 12th St., Omaha, Nebr.
United American Metals Corp., 200 Diamond St., Brooklyn, N. Y.
Valenti Metal Corp., 937 Grand, Brooklyn, N. Y.
Wildes, Thomas, Son, Inc., 23 Borden Ave., Long Island, N. Y.

METALLIC INK (BRONZE)
See Bronze Powders and Metallic Ink.

MICROMETER COMPOSING STICKS
See Composing, etc., Sticks.

MICROMETER LINE-UP TABLES
See Line-Up and Register Machines.

MILEAGE BOOK PRINTING AND MAKING MACHINES
See Printing Presses.

MILK BOTTLE CAP PRINTING AND PUNCHING MACHINES
See Printing Presses.

MITER BOXES
See Tools.

MITERING MACHINES
See Lead, Rule and Slug Cutting and Mitering Machines. Also Sawing, Trimming, etc., Machinery.

MOISTURE CONTROL DEVICES
See Lithographic and Offset Lithographic and Offset Plate Making Equipment and Supplies.

MOISTURE INDICATOR FOR PAPER

Cambridge Instrument Co., Grand Central Terminal Bldg., New York, N. Y.

MOLESKIN ROLLERS
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MOLLETON
See Lithographic and Offset Plate Making, Equipment and Supplies.

MOLLETON ROLLERS
See Rollers.

MONORAIL TRIMMING MACHINES
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MONOTYPE METAL
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MOTORS, CONTROLLERS, DRIVES, ETC.
See Dynamos, etc.

MOLDING BOARD, STEREO
See Paper and Board.

MOLDING MACHINE DRIVES
See Dynamos, etc.

MOLDS, INGOT
See Metal Feeders.

MOUNTING BLOCKS
See Plate Mounting Equipment.

MOUNTING BOARD
See Paper and Board

MOUNTING CLOTH
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MOUNTING GUMS
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MOUNTING MACHINES
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MOVERS
Krasilovsky, S., & Bros., Inc., 216 Centre St., New York, N. Y. **151**

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MULTICOLOR PROOF PRESSES, POWER, AUTOMATIC
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MULTICOLOR ROTARY PRINTING PRESSES
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MULTICOLOR ROTAGRAVURE PRESSES
See Rotagravure under Printing Presses.

MULTICOLOR UNIVERSAL UNIT PRESSES
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MULTI-OPERATION AND MULTI-PROCESS PRINTING PRESSES
See Printing Presses.

MULTIPLE CONTACT NEGATIVE COMPOSING MACHINES
See Lithographic and Offset Plate Making, Equipment and Supplies.

MULTIPLE NEGATIVE ATTACHMENT FOR CAMERA
See Cameras.

MULTIPLE PERFORATORS AND PUNCHES
See Perforators, Punches, etc.

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NEEDLES
See Sewing Machines.

NEGATIVE GROUPING OR PHOTO COMPOSING MACHINES
See Lithographic and Offset Plate Making, Equipment and Supplies.

NEUTRALIZERS, ELECTRIC STATIC
See Electric and Gas Heaters.

NEWS INK
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NEWSPAPER BINDERS, FILES, RACKS *A.T.F.*
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NEWSPAPER CHASES
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NEWSPAPER FOLDERS
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NEWSPAPER MAILING FOLDERS
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NEWSPAPER PRINTING PRESSES
See Printing Presses.

NEWSPAPER PROOF PRESSES
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NEWSPAPER REELS, TENSION CONTROLLED
***Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill.** **13**

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OFFSET CAMERAS
See Cameras.

OFFSET COLOR PROVING PRESSES
See Proof and Test Presses.

OFFSET PLATE GRAINING MACHINES
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PLATE MAKING AND PRINTING EQUIPMENT AND SUPPLIES
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PLATE SOLUTION
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PLATE WHIRLERS
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PRESS ROLLER CLEANING MACHINES
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PRESS ROLLER DAMPENING DEVICES
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET PRESSES
See Printing Presses.

OFFSET PREVENTING EQUIPMENT *A.T.F.*
Acme Gear Co., 701 Wood St., Philadelphia, Pa.
Craig Sales Corp., 636 Greenwich St., New York, N. Y.
Hoerth, A. G. & Co., 608 S. Dearborn St., Chicago, Ill.
Hoy Offset & Static Eliminator, 139 E. 3rd St., Cincinnati, O.
International Printing Ink Corp., 75 Varick St., New York, N. Y. 72-73
Paasche Airbrush Co., 1909-1927 Diversey Pkwy., Chicago, Ill. 8-9
Pabish, W. R., 2855 N. Rockwell St., Chicago, Ill.
Smith, Francis X. Co., 952 E. 93rd St., Canarsie, Brooklyn, N. Y.

OFFSET PROOF PRESSES
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OFFSET ROLLERS
See Rollers.

OFFSET STEP AND REPEAT UNITS
See Lithographic and Offset Plate Making, Equipment and Supplies.

OFFSET ZINC PLATES
See Aluminum, Copper and Zinc Plates.

OIL CANS
See Cans.

OPEN SIDE GALLEYS
See Galleys.

OPEN SIDE TRUCKS
See Trucks.

OVERLAY KNIVES
See Knives.

OVERLAY TABLES
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OVERLAYS, CHALK AND MECHANICAL
Cantine Co., Inc., The Martin, 501 Fifth Ave., New York, N. Y.
Collins, A. M., Mfg. Co., 226 W. Columbia Ave., Philadelphia, Pa.
Duro Overlay Process, 579 Ravenswood Circle, Wauwatosa, Wis.
Graphic Arts Laboratories, 184 W. Lake St., Chicago, Ill.
Hoke Engraving Plate Co., 1024 Park Ave., St. Louis, Mo.
Walker Cameo Overlay Corp., 1374 Massachusetts Ave., Cambridge, Mass.

OX GALL
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OZONATING EQUIPMENT
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PACKAGING AND PACKAGE TYING MACHINES
See Bundle Tying, etc.

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PACKING ROOM TABLES
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PAD CUTTERS
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PADDING ATTACHMENTS OR PRESSES
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PAGE FRAMES
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See Die Stamping.

PAMPHLET COVERING MACHINES
See Bookbinding Machinery.

PAPER BALING PRESSES AND TIES
See Bailing Presses and Ties.

PAPER AND BOARD

a. Binders' Board
b. Blanks
c. Blotting
d. Bond and Ledger
e. Book
f. Bristol
g. Coated Board
h. Coated Paper
i. Cover
j. Manila
k. News
l. Offset
m. Parchment
n. Post Card
o. Press Board
p. Rotagravure
q. Stereotype
r. Tag
s. Transfer
t. Tympan *A.T.F*
u. Specialty

Albemarle Paper Mfg. Co., Box 2189, Richmond, Va. —*c-i-u.*
Allied Paper Mills, Kalamazoo, Mich.—*e-f-g-h-l-p-u.*
American Transfer Paper Co., 1759 Sunnyside Ave., Chicago, Ill.—*s.*
American Writing Paper Co., Inc., Holyoke, Mass.—*d-e-i-f-l-u.*
Beckett Paper Co., The, Hamilton, O.—*e-i-l.*
Behr-Manning Corp., Troy, N. Y.—*t.*
Brown Co., 404 Commercial St., Portland, Me.—*d-e-f-i-l-n.*
Brown, L. L., Paper Co., Adams, Mass.—*d-f-m-u.*
Bryant Paper Co., Kalamazoo, Mich.—*e-h-l.*
Byron-Weston Co., Dalton, Mass.—*d.*
Champion Paper & Fibre Co., The, Hamilton, O.—*d-f-g-n-o*
Collins, Mfg., North Wilbraham, Mass.—*d-f-g.*
Collins, A. M., Mfg. Co., 226 W. Columbia Ave., Philadelphia, Pa.—*e-g-i-r-u.*
Crocker-McElwain Co., Chemical Paper Mfg. Co., Holyoke, Mass.—*d-i-f-g-l.*
Cromwell Paper Co., 4801 Whipple St., Chicago, Ill.—*t.*
De Jonge, Louis, & Co., 71 Duane St., New York, N. Y.
Dexter, C. H., & Sons, Inc., Windsor Locks, Conn.—*d-q.*
Dill & Collins, Inc., Richmond & Tioga Sts., Philadelphia, Pa.—*e-g-h-i-l.*
Eastern Mfg. Co., 500 Fifth Ave., New York, N.Y.—*e-d-i-u*
Eaton Paper Co., Adams, Mass.—*d.*
Esleeck Mfg. Co., Turners Falls, Mass.—*d.*
Falulah Paper Co., Fitchburg, Mass.—*g.*
Federal Paper Board Co., Inc., 24 River Road, Bogota, N. J.—*g-k-u.*
Fox River Paper Co., Appleton, Wis.—*d-i.*
Franklin Paper Co., Appleton, Wis.—*b-f.*
Fraser Paper, Ltd., Madawaska, Me.—*e-d-l.*
Gilbert Paper Co., Menasha, Wis.—*d-f-i.*
Gould Paper Co., Lyons Falls, N. Y.—*j-k.*
Hammermill Paper Co., Erie, Pa.—*d-f-i-l-n-u.*
Hawthorne Paper Co., Kalamazoo, Mich.—*d-l-u.*
Hewett & Bros., C. B., Inc., 23 Greene St., New York, N. Y.
Holyoke Card & Paper Co., Springfield, Mass.—*b-g-h-i-r-u.*
Hooper, F. X., Co., Inc., Glenarm, Md.—*f.*
Howard Paper Co., Urbana, O.—*d.*
Hurlbut Paper Co., South Lee, Mass.—*d-e-i-u.*
Inland Empire Paper Co., Millwood, Wash.—*e-k.*
International Paper Co., 220 E. 42nd St., New York, N. Y.—*d-e-i-k-l-p.*
Kalamazoo Paper Co., Kalamazoo, Mich.—*e-l-n-u.*
Kalamazoo Vegetable Parchment Co., Parchment, Mich. —*d-l-m.*
Lee Paper Co., Vicksburgh, Mich.—*d-e-u.*
Miami Valley Coated Paper Co., Franklin, O.—*b-e-f-g-h-i-j-l-n-r.*
Miller Paper Co., 80 Wooster St., New York, N. Y.—*f-u.*
Munising Paper Co., The, Munising, Mich.—*d-l-u.*
Neenah Paper Co., Neenah, Wis.—*d.*
Niagara Paper Mills, Lockport, N. Y.—*e-i.*
Northwest Paper Co., The, Cloquet, Minn.—*e-f-i-k-l-m.*
Oroline Products Co., 127 W. Harrison St., Chicago, Ill. —*u.*
Oxford Paper Co., 230 Park Ave., New York, N. Y.—*e-h-l-p-r-u* **..... 36**
Parsons Paper Co., 84 Sargeant St., Holyoke, Mass.—*d-f.*
Paterson Parchment Paper Co., Bristol, Pa.—*m.*
Patten Paper Co., Ltd., Appleton, Wis.—*e-u.*
Peninsular Paper Co., Ypsilanti, Mich.—*e-i.*
Port Huron Sulphite & Paper Co., Foot of Washington St., Port Huron, Mich.
Reading Paper Mills, Inc., Canal & Pine Sts., Reading, Pa. —*d-e-f-i-l-u.*
Reynolds Metal Co., 19 Rector St., New York, N. Y.—*u.*
Rhinelander Paper Co., Inc., W. Davenport St., Rhinelander, Wis.—*m.*
Riegel Paper Corp., 342 Madison Ave., New York, N. Y. —*f-l-r-t-u.*
Russell Products Co., 810 Sansom St., Philadelphia, Pa. —*q.*
Stahi Newspaper Supply Co., Inc., Oregonian Bldg., Portland, Ore.—*t*..... 4-5-59
Standard Paper Co., Kalamazoo, Mich.—*b-f.*
Strathmore Paper Co., West Springfield, Mass.—*d-e-f-h-i-, m-p-u.*
Tileston & Hollingsworth Co., 213 Congress St., Boston Mass.—*d-e-f-i-l.*
United States Envelope Co., Springfield, Mass.—*u.*
Valley Paper Co., Holyoke, Mass.—*d-u.*
Warren, S. D., Co., 89 Broad St., Boston, Mass.—*e-h-i-l.*
Waterfalls Paper Mills, 21 E. 40th St., New York, N. Y. —*d-f-i-l.*
Whiting Paper Co., Holyoke, Mass.—*d-e-f-u.*
Whiting Plover Paper Co., Stevens Point, Wis.—*d-i-u.*
Wrenn Paper Co., The, Middletown, O.—*c-u.*

PAPER AND BOARD SHEARS AND BLADES
See Cutting and Trimming Machines.

PAPER BOX MAKERS' MACHINERY
See Carton and Paper Box Makers' Machinery.

PAPER BOX MAKING AND PRINTING MACHINES
See Printing Presses.

PAPER BREAK DETECTORS
See Dynamos, etc.

PAPER COATING LACQUER
See Ink.

PAPER CONDITIONING HANGERS *A.T.F.*
*Southworth Machine Co., 30 Warren Ave., Portland, Me.

PAPER CONDITIONING EQUIPMENT
See Air and Paper Conditioning Equipment.

PAPER COVERING MACHINES
See Bookbinding Machinery.

PAPER CUTTER BOOK GUIDES
See Bookbinding Machinery.

PAPER DRILLING AND DRILL SLOTTING MACHINES *A.T.F.*
Burke Machine Tool Co., The, Conneaut, O.
***Challenge Machinery Co., The, Grand Haven, Mich... 21**
Mick, Walter K., Co., 500 Robert St., St. Paul, Minn.
Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill... 151
Wright Co., The J. T., 2103 Reading Rd., Cincinnati, O.

PAPER CUTTING MACHINES AND KNIVES
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PAPER GAUGES
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PAPER HOLDERS FOR TYMPAN AND WRAPPING PAPER *A.T.F.*
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. 25**

PAPER JOGGING MACHINES
See Jogging Machines.

PAPER LIFTS, TIERING MACHINES *A.T.F.*
Berry Machine Co., 718 N. 1st St., St. Louis, Mo.
Economy Engineering Co., 2653 W. Van Buren St., Chicago, Ill. 151
***Miehle Printing Press & Mfg. Co., 14th and S. Damen Ave., Chicago, Ill. 77**
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. 25**

PAPER PUNCHES
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PAPER REELS AND TENSIONS (FOR NEWSPAPER PRESSES)
***Cline Electric Mfg. Co., 211 Wacker Dr., Chicago, Ill.. 13**
Duplex Printing Press Co., Battle Creek, Mich. 14
Hoe, R., & Co., 138th St. and East River, New York, N. Y. 84-85
*Kohler Bros., 410 N. Michigan Ave., Chicago, Ill.
*Monomelt Co., The, Inc., 1611-15 Polk St., N. E., Minneapolis, Minn.

PAPER RULING MACHINES AND SUPPLIES
See Ruling Machines, Accessories and Supplies.

PAPER SEASONING HANGERS
See Air and Paper Conditioning Equipment.

PAPER SHEET SCALES
See Gauges.

PAPER SHEETING MACHINES
See Cutting and Trimming Machines.

PAPER SHREDDING MACHINES
See Macerating Machines.

PAPER SLITTERS AND REWINDERS
See Slitting and Rewinding Machinery.

PAPER STRENGTH TESTERS
See Gauges.

PAPER THICKNESS MICROMETERS
See Gauges.

PARAFFINING AND WAXING MACHINES
Acme Gear Co., 701 Wood St., Philadelphia, Pa.
*Chambers Bros., Inc., 52nd and Media Sts., Philadelphia, Pa.
Gibbs-Brower Co., Inc., 401 Broadway, New York, N. Y.
International Paper Box Machinery Co., 315 Main St., Nashua, N. H.
Knowlton Co., M. D., 28 Industrial St., Rochester, N. Y.
Loyster, James A., 37 Mill St., Cazenovia, N. Y.
*New Era Mfg. Co., 375 11th Ave., Paterson, N. J.
Potdevin Machine Co., Inc., 1221 38th St., Brooklyn, N. Y.
Printing Press Extension Delivery Co., 447 W. 40th St., New York, N. Y.
Saranac Machine Co., Inc., 376 W. Main St., Benton Harbor, Mich.

PARING AND CUTTING KNIVES
Bookbinders', see Knives.

PASTE
See Adhesives.

PASTE DRIERS
See Ink.

PASTE MIXERS
See Carton and Paper Box Makers' Machinery, etc.

PASTE POTS (FOR MAILING)
See Glue Heaters and Pots.

PASTERS
See Flying Pasters.

PASTING MACHINES
See Gluing, Gumming, etc., Machinery.

PATCH EYELETTERS
See Eyeletting Machines. Also see Printing Presses.

PATENT BASES OR BLOCKS
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PATCH MACHINES

Makatag Mfg. Corp., Reading, Mass.
***Meisel Press Mfg. Co., 942 Dorchester Ave., Boston, Mass. 67**
*New Era Mfg. Co., 375 11th Ave., Paterson, N. J.
Vierengel, M., Machine Co., Inc., 360 Troutman St., Brooklyn, N. Y.

PEBBLING, ROUGHING AND STIPPLING MACHINES

Cavagnaro, John J., 5th, Essex and 6th Sts., Harrison, N. J.
Waldron, John, Corp., River Rd., New Brunswick, N. J.
General Printing Ink Corp., Rutherford Machinery Div., 100 Varick St., New York, N. Y.
*Fuller, E. C., Co., 28 Reade St., New York, N. Y.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. 131
Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.

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PERFORATING AND PRINTING MACHINES
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PERFORATING, PUNCHING, CREASING, SCORING AND CONFETTI MAKING MACHINES, PUNCHING HEADS, PAPER DRILLING AND DRILL SLOTTING MACHINES

a. Confetti Machines
b. Perforators—*A.T.F.*
c. Punches—*A.T.F.*
d. Scorers and Creasers—*A.T.F.*

Bates Manufacturing Co., The, 18 Central Ave., Orange, N. J.—*c.*
Berry Machine Co., 716 N. 1st St., St. Louis, Mo.—*c-d.*
***Challenge Machinery Co., The, Grand Haven, Mich.—*c.* 21**
Davidson Perforator Corp., 7157 68th Pl., Glendale, Brooklyn, N. Y.—*b-d.*
Griswold, George M., Machine Co., Bradley and William Sts., New Haven, Conn.—*b-c-d.*
***Harris-Seybold-Potter Co., Seybold Machine Co., Div., 811 Washington St., Dayton, O.**—*b-c-d.* **88-89**
Knowlton, M. D., Co., 28 Industrial St., Rochester, N. Y.—*d.*
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y.—*d.* **131**
Myover-Stryker Co., Fredonia, Kans.—*b.*
Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill.—*b-c.* **151**
*Rosback, F. P., Co., Box 675, Benton Harbor, Mich.—*a-b-c.*
*Southworth Machine Co., 30 Warren Ave., Portland, Me.—*c-b.*
Star Tool Works, Shuey Bldg., Springfield, O.—*c.*
Wright, J. T., Co., The, 2103 Reading Rd., Cincinnati, O.—*c.*

PERFORATING RULE
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PHOTO COMPOSING MACHINES
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PHOTOENGRAVERS' LAMPS
See Photoengravers' Equipment and Supplies

PHOTOENGRAVERS' MACHINERY DRIVES
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PHOTOENGRAVERS' PROOF PRESSES
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PHOTO-GELATIN ROLLERS
See Rollers.

PHOTOGRAPHIC LETTERING MACHINES
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PHOTOGRAVURE PRESSES
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PHOTOENGRAVERS' EQUIPMENT AND SUPPLIES

Agfa-Ansco Camera Co., 245 W. 55th St., New York, N. Y.
American Shading Machine Co., 800 Prospect Ave., Buffalo, N. Y.
American Steel & Copper Plate Co., 101 Fairmont Ave., Jersey City, N. J.
Arabol Mfg. Co., Inc., The, 110 E. 42nd St., New York, N. Y.
Atlas Electric Devices Co., 361 W. Superior St., Chicago, Ill.
Aurora School of Photo-Engraving, The, Aurora, Mo.
Ben Day, Inc., 118 E. 28th St., New York, N. Y.
Booth, E. A., Rubber Co., 364 Rockefeller Bldg., Cleveland, O. 137
California Ink Co., 545 Sansome St., San Francisco, Calif.
Chemco Photo-Products, Inc., Glen Cove, L. I., N. Y.
*Claybourn Process Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.
Columbia Planograph Co., The, 50-54 L St., N. E., Washington, D. C.
Cooper-Hewitt Electric Co., 863 Adams St., Hoboken, N. J.
Croke, Allan B., Co., 163 Olive St., Boston, Mass.
Dom, G. C., Supply Co., 125 E. Pearl St., Cincinnati, O.
Douthitt Corp., The, 650 W. Baltimore Ave., Detroit, Mich.
Eastman Kodak Co., 343 State St., Rochester, N. Y.
Engravers & Printers Machinery Co., Jermain Ave., Sag Harbor, L. I., N. Y.
Gelb, Joseph, Inc., 250 W. 54th St., New York, N. Y.
Haloid Co., 6 Haloid St., Rochester, N. Y.
Hoe, R., & Co., 138th St. and East River, New York, N. Y. 84-85
Holmstrom, Axel, Drexel Bldg., Philadelphia, Pa.
Hunt, Philip A., Co., 253 Russell St., Brooklyn, N. Y.
Johnstone Electric Co., Inc., 536 S. Clark St., Chicago, Ill.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. 131
*Levy, Max & Co., Wayne and Berkley, Philadelphia, Pa.
Litho Chemical & Supply Co., 63 Park Row, New York, N. Y.
*Macbeth Arc Lamp Co., 875 N. 28th St., Philadelphia, Pa.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis, Mo.
Master Etching Mach. Co., Drexel Bldg., Philadelphia, Pa.
Murphy, George, Inc., 57 E. 9th St., New York, N. Y.
National Steel & Copper Plate Co., 720 S. Dearborn St., Chicago, Ill.
***Ostrander-Seymour Co., The, 1874 S. 54th Ave., Cicero Sta., Chicago, Ill. 30**
Pease, C. F., Co., The, 848 N. Franklin St., Chicago, Ill.
Photo-Engraving Equipment & Supplies, 716 W. Indiana Ave., Philadelphia, Pa.
Pitman, Harold M., Co., 51st Ave. and 33rd St., Cicero, Chicago, Ill.
Polygraphic Co. of America, Inc., 310 E. 45th St., New York, N. Y.
Reproductive Art Machinery Co., Wayne Ave. & Berkley Sts., Philadelphia, Pa.
*Robertson, R. R., 400 W. Madison Ave., Chicago, Ill.
Rogers Isinglass & Glue Co., Gloucester, Mass.
Rolled Plate Metal Co., 196 Van Brunt St., Brooklyn, N. Y. 133
Royle, John & Sons, Straight and Essex Sts., Paterson, N. J.
Sandberg Mfg. Co., 1949 Fulton St., Chicago, Ill.
Sweigard Ideal Co., 6138 N. 21st St., Philadelphia, Pa.
U. S. Stoneware Co., The, 50 Church St., New York, N. Y. 151
Wallace & Tiernan Products, Inc., 11 Mill St., Belleville, N. J.
Zeiss, Carl, Inc., 485 Fifth Ave., New York, N. Y.

PHOTOENGRAVING PROCESS

Ebolite Corporation, 1018 S. Wabash Ave.,
Meinograph Process, Inc., 605 Fisher Bldg., Detroit, Mich.

PHOTO LITHO EQUIPMENT
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PHOTO LITHOGRAPHERS' SOLUTIONS
See Lithographic and Offset Plate Making Equipment and Supplies.

PHOTO MECHANICAL EQUIPMENT
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PINKING MACHINES AND ATTACHMENTS
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PLANING OR ROUGHING MACHINES
See Stereotypers' Machinery; also Sawing, Trimming Machinery.

PLANOGRAPH CAMERAS
See Cameras.

PLATE GRAINING, LITHO

Chicago Plate Graining Co., 216 N. Clinton St., Chicago, Ill.
Photo-Litho Plate Graining Co., Inc., 1207 S. Highland, Baltimore, Md.

PLATE MOUNTING EQUIPMENT
Bases and Catches, Hooks, for Both Flat Bed and Rotary Presses. Also Newspaper and Stereotype Bases.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**
Blatchford, E. W., Co., 63 Park Row, New York, N. Y. 124
***Challenge Machinery Co., The, Grand Haven, Mich. 21**
*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.
Hoe, R. & Co., Inc., 138th St. and East River, New York, N. Y. 84-85
Hoerth, A. G., 608 S. Dearborn St., Chicago, Ill.
Latham Auto Registering Co., 608 S. Dearborn St., Chicago, Ill.
Levison Mfg. Co., 1548 California St., San Francisco, Calif.
M. & L. Type Foundry, 4001 Ravenswood Ave., Chicago, Ill.
Pitt, J. W., Inc., Bath, N. Y.
***Printing Machinery Co., The, 436 Commercial Sq., Cincinnati, O. 83**
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. 25**
Stahl Newspaper Supply Co., 417 Oregonian Bldg., Portland, Ore. 4-5-59
*Unique Steel Block Co., Waverly, N. Y.
Warnock, W. S., Co., 1524 Jonquil Terrace, Chicago, Ill. 149

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PLATE MORTISING AND CORRECTING MACHINES
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PLATE SHAVING MACHINES
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See Cabinets.

PLATEN PRESS COUNTERS
See Counters, etc.

PLATEN PRESSES
See Printing Presses.

PLOW AND PRESS
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PLUSH ROLLERS
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POCKET TYPE HIGH GAUGES
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PORTABLE ELEVATORS
See Paper Lifts.

PORTABLE ROUTERS
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PORTABLE SLUG SAWS
See Sawing, Trimming, etc.

POSTAGE STAMP PERFORATORS
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POSTER CHASES
See Chases, etc.

POSTER STICKS
See Composing, etc., Sticks.

POWDER FOR RAISED PRINTING MACHINES
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POWER MITERING MACHINES
See Lead, etc., Cutting Machines and Sawing, Trimming, Machines.

POWER PAPER CUTTERS
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PRESS BLANKETS
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PRESS BOARD (PAPER)
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PRESS BOARDS (WOODEN)
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PRESS BRAKES
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PRESS CONTROL SYSTEMS, DRIVES, ETC.
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PRESSED STEEL GALLEYS
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PRESSROOM CABINETS
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PRESS SEATS (CYLINDER)
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PRESS SHEET HEATERS
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PRESSURE BLOWERS (FOR AGITATING ELECTROTYPING AND ETCHING SOLUTIONS)
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PRESS TAPE
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PRESS WASHUP MACHINES
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PRINTERS' ROLLERS
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PRINTING MACHINERY DEALERS *A.T.F.*

***Abrams, M. L., 1639 Superior Ave., Cleveland, O.....121**
Ace Printers Machinery Co., 154 W. 26th St., New York, N. Y.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.....60A-60B-62-90**
Allied Printing & Binding Machinery Co., 1975 E. 65th St., Cleveland, O.....122
Arnold Numbering Machine Works, 11 N. Franklin St., Chicago, Ill.
Baker, A. F., Machine Co., 142 Oliver St., Boston, Mass.
Beall, James I., 115 S. Union St., Akron, O.
*Brintnell, Harry W., Co., 51 Clementina St., San Francisco, Calif.
*Bush-Krebs Co., 408 W. Main St., Louisville, Ky.
*California Printers Supply Co., 407 E. Pico St., San Francisco, Calif.
Chicago Printers Machinery Works, 609 W. Lake St., Chicago, Ill.
Commercial Press, The, 70 Exchange St., Rochester, N. Y.
Craftsman Machinery Co., 307 Atlantic Ave., Boston, Mass.....2-143
Damon & Peets, Inc., 56 Beekman St., New York, N. Y. 151
*Detroit Numbering Machine Co., 535 Bates St., Detroit, Mich.
Dodson Printers Supply Co., 231 Pryor St., S. W., Atlanta, Ga.
Dorsey Printers Supply Co., Inc., 88 Hernando St., Memphis, Tenn.
Farnsworth, John, Bourse Bldg., Philadelphia, Pa.
Frank, F., 3017 W. Carroll Ave., Chicago, Ill.
*Fuller, E. C., Co., 28 Reade St., New York, N. Y.
*Gegenheimer, Wm., Inc., 78 Roebling St., Brooklyn, N. Y.
Gibbs-Brower, Inc., 401 Broadway, New York, N. Y.
*Gorton, Clifford W., 48 Smith St., West Haven, Conn.
Graphic Arts Machine Agency, 12 Wooster St., New York, N. Y.
*Griffiths, John, Co., Inc., 145 Nassau St., New York, N. Y.
Hall, Thos. W., Co., 120 E. 42nd St., New York, N. Y.
*Hall, Thomas W., Co., Melrose Ave., Stamford, Conn.
*Haywood, C. B., Co., 431 N. W. Glisan St., Portland, Ore.
***Heidelberg Printing Machinery Corp., 228 E. 45th St., New York, N. Y.....61**
*Heinsohn, A. E., 1441-47 Blake St., Denver, Colo.
Hennegan, J. D., Co., Inc., 549 W. Fulton St., Chicago, Ill.
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*Hood-Falco Corp., 225 Varick St., New York, N. Y.
*Huebner Laboratories, 202 E. 44th St., New York, N. Y.
*Jennings, Hillory, 619 N. Beach St., Little Rock, Ark.
Lavery, Chas., 69 E. Long St., Columbus, O.
Lawson, E. P., & Co., 424 W. 33rd St., New York, N. Y
Lindner, E. G., Co., 419 Wall St., Los Angeles, Calif.
Linograph Corp., 107 Scott St., Davenport, Iowa.
Linotype Supply Co., 86 Walker St., New York, N. Y.
Linotypers' Supply Co., 13 Custom House St., Boston, Mass.
*Ludwig, Otto, Printers Supply, Inc., 106 Ann St., Hartford, Conn.
Midwest Printers' Supply, Inc., 139 E. Third St., Cincinnati, O.
Miles Machinery Co., 18 E. 16th St., New York, N. Y..102
Milwaukee Printers Roller Co., 420 S. 4th St., Milwaukee, Wis.
Missouri Central Type Foundry, 701 E. Murdock Ave., Wichita, Kans.
*Myers, E. G., 924 Santa Fe Bldg., Dallas, Texas.
Nagel-Ryan Co., Inc., 4363 Woodward Ave., Royal Oak, Mich.
Nissenbaum, Irving, Inc., 114 W. 27th St., New York, N. Y.
Northern Machine Works, Marshall and Jefferson Sts., Philadelphia, Pa.
Northwest Type Foundry, 2101 Kennedy St., N. E., Minneapolis, Minn.
Nuernberger, P. G., 655 S. Wells St., Chicago, Ill.
Omaha Printers Supply Co., 1122 Harney St., Omaha, Neb.
*Patchen & Hoefler, 40 Aqueduct St., Rochester, N. Y.
Pavyer Printing Works, 600 S. Broadway, St. Louis, Mo.
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*Printers Supply Corp., 340 E. 3rd St., Los Angeles, Calif.
Printers Trading Post, The, 606 Broadway, Kansas City, Mo.
Ramsaier-Holland Corp., 134 W. 25th St., New York, N. Y.
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Rochester Printers Supply Co., 29 Market St., Rochester, N. Y.
*Ryan, Jos, A., 8911 W. Chester Pike, Philadelphia, Pa.
Schroeter, J. H., & Bros., 223 Central Ave., Atlanta, Ga.....150
Shalley Co., The., 328 Liberty Ave., Pittsburgh, Pa.
*Southeastern Printers Supply Co., 267 Trinity Ave. S. W., Atlanta, Ga.
Stephens & Wickersham Quoin Co., 174 High St., Boston, Mass.
Stevens, F. H., Type Co., 13 Custom House St., Boston, Mass.
*Stolp-Gore Co., 710 W. Jackson Blvd., Chicago, Ill.
Tompkins Printing Equipment Co., 705 S. Dearborn St., Chicago, Ill.
Turner Type Foundry, Inc., 1729 E. 22nd St., Cleveland, O.
Wanner Co., The, 720 S. Sherman St., Chicago, Ill.
Zanetti, J., Machine Works, 1701 Kirkwood Ave., San Francisco, Calif.
Ziegler, Robt., & Son, Machine Co., Inc., 210 Vine St., St. Louis, Miss.
*Zimmer Printers Supply Co., 72 Beekman St., New York, N. Y.

PRINTING PRESS CONTROLLERS
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PRINTING PRESSES *A T. F.*

a.	Automatic	*v.*	Magazine
b.	Bag	*w.*	Mileage
c.	Bill Lading	*x.*	Newspaper
d.	Bottle Cap	*y.*	Offset
e.	Card	*z.*	Planographic
f.	Carton	*aa.*	Platen
g.	Color	*bb.*	Register Form
h.	Check	*cc.*	Roll-Feed
i.	Cylinder	*dd.*	Roll Form
j.	Envelope	*ee.*	Rotary
k.	Envelope Blank	*ff.*	Rotogravure
l.	Fanfold Form	*gg.*	Sales Book
m.	File Folder	*hh.*	Sheet Feed
n.	File Form	*ii.*	Tag
o.	Flat Bed	*jj.*	Tape
p.	Form Letter	*kk.*	Ticket
q.	Hand	*ll.*	Tin
r.	Index Card	*mm.*	Vertical
s.	Job	*nn.*	Web
t.	Label	*oo.*	Wrapper
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Alco Gravure Co., 52 E. 19th St., New York, N. Y.—*ff*, American Printing Machinery Co., 41 Hanover St., Boston Mass.—*aa*.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**—*a-c-i-o-q-s-aa-hh*.....60A-60B-62-90
*Asheton Press Mfg. Co., Baltimore, Md.—*s-cc*.
*Babcock Printing Press Mfg. Co., 38 Piquot Ave., New London, Conn.—*a-g-i-o-ee-hh*.
***Brandtjen & Kluge, 643 Gaultier St., St. Paul, Minn.**—*a-c-s-aa*..... 57
***Challenge Machinery Co., The, Grand Haven, Mich.**—*i*. 21
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*Cochrane-Bly Co., 15 St. James St., Rochester, N. Y.—*y*.
Columbia Planograph Co., 50 L St., N. E., Washington, D. C.—*u-y-z-ee*.
Columbia Printing Machinery Corp., 2 Lafayette St., New York, N. Y.—*a-g-k-s-t-u-y*.
Connell & Dengler Machine Co., 371 St. Paul St., Rochester, N. Y.—*q*.
Cottrell, C. B., & Sons Co., Westerly, R. I.—*b-f-v-cc-hh-nn*..... 10
Craftsmen Machinery Co., 307 Atlantic Ave., Boston, Mass.—*q-s*.....2-143
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*Durbrow & Hearne, 12 Wooster St., New York, N. Y.—*dd*.
Egry Register Co., 417-435 Monument Ave., Dayton, O.—*dd*.
Elliott Addressing Machine Co., Cambridge, Mass.—*c*.
General Printing Ink Corp., 100 Sixth Ave., New York, N. Y., Rutherford Machinery Co., Div.—*y-ee-ll*.
Goss Printing Press Co., The, 1535 S. Paulina St., Chicago, Ill.—*g-v-z-cc-ee*..... Inside Front Cover—1
Grammes, L. F., Sons, Inc., 344 Union Ave., Allentown, Pa.—*s*.
*Griffiths, John, Co., Inc., 145 Nassau St., New York, N. Y.—*a-g-o-s-aa-cc-ff-nn*.
***Harris-Seybold-Potter Co., 4510 E. 71st St., Cleveland, O.**—*a-j-o-t-u-y-ee-ff-hh-ll*.....88-89
***Heidelberg Printing Machinery Corp., 228 E. 45th St., New York, N. Y.**—*a-s-aa*..... 61
Heinrich, H. H., Inc., 200 Varick St., New York, N. Y.—*b-ee-ff*.
Hoe, R., & Co., 138th and East River, New York, N. Y.—*g-u-v-z-y-ee-ff-hh-pp*.....84-85
Hooper, F. X., Co., Inc., Glenarm, Md.—*f*.
Hughes Machine Co., 44 Beauvoir St., Summit, N. J.—*h*.
Kavinor Automatic Press Co., 23 Duane St., New York, N. Y.—*a*.
Kelsey Press Co., The, 62 Colony St., Meriden, Conn.—*q*.
Kidder-U. P. M., Press Co., 121 Broadway, Dover, N. H.—*a-z-aa-ee-qq*.....132
Kienzle & Merrick Mfg. Co., The, 1212 S. Third St., Minneapolis, Minn.—*a-o*.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y.—*l-r-gg-ee*.....131
Lester & Wasley Co., Inc., Norwich, Conn.—*k*.
Lockport Machine Co., 60 Chestnut St., Lockport, N. Y.—*b*.
McCain Brothers Mfg. Co., 2717 Poplar St., Chicago, Ill.—*a-i*.
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*Miller Printing Machinery Co., 1117 Reedsdale Ave., Pittsburgh, Pa.—*a-s*.

*New Era Mfg. Co., 375 11th Ave., Paterson, N. J. —*o-l-u-y-hh-ii-ee-nn.*

Nolan, Edw. G., Engineering Co., 311 N. Gay St., Rome, N. Y.

Pencil Supply Co., Inc., 4332 Hudson Blvd., Union City, N. J.—*qq.*

Pine Ihrig Machine Co., 36-38 Marion St., Oshkosh, Wis. —*a-g-o-s-aa-cc-ff-hh.*

Post Mfg. Works, 671 Diversey St., Chicago, Ill.—*j.*

Potdevin Machine Co., Inc., 1221 38th St., Brooklyn, N. Y.—*b.*

Printing Press Parts & Supplies., Inc., 225 High St., Boston, Mass.—*ii **108**

Rotogravure Engineering Corp., 175 5th Ave., New York, N. Y.—*ff.*

Rutherford Machinery Co., Div. General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.—*y-ll.*

Sanlin Offset Press Mfg. Corp., 38 E. 29th St., New York, N. Y.—*y.*

Saranac Machine Co., 376 W. Main St., Benton Harbor, Mich.—*f.*

Scott, Walter, & Co., Plainfield, N. J.—*x-y-ee-ff-nn.*

Sevigne, F. J., Machine Co., 41 Crown St., Nashua, N. H. —*qq. Fruit Stamping Mach.*

Sigwalt Mfg. Co., 2011 N. Lawndale Ave., Chicago, Ill. —*q-aa.*

Simplex Gold Stamping Press Co., Inc., 425 4th Ave., New York, N. Y.—*s.*

Smith & Winchester Mfg. Co., The, South Windham, Conn.—*b.*

Specialty Automatic Machine Co., 200 Boston Ave., Medford, Mass.—*qq.*

Standard Process Co., 734 Mather St., Chicago, Ill. —*f-nn-qq.*

Steel Products Engineering Co., The, 1060 W. Columbia St. Springfield, O.—*l.*

Stokes, A. S., Co., The, Main St., Hudson, O.—*j.*

Stokes & Smith Co., Frankford, Philadelphia, Pa.

Swift, George W., Inc., Bordentown, N. J.—*d-l-ii-ll.*

*Thompson National Press Co., Dean Ave., Franklin, Mass. —*o-s-hh.*

***U. P. M.-Kidder Press Co., 121 Broadway, Dover, N. H.**—*a-x-aa-ee-qq*..... **132**

Vierangel Machine Co., The M., 360 Troutman St., Brooklyn, N. Y.—*j.*

***Webendorfer-Wills Co., Inc., 2 South St., Mt. Vernon, N. Y.**—*i-y-hh-nn*..... **33**

Willsea Works, The, 1042 University Ave., Rochester, N. Y.—*qq.*

Wood Newspaper Machinery Corp., 501 Fifth Ave., New York, N. Y.—*g-x-ee-nn*..... **20**

Young Engineering Works, 2747 High St., Chicago, Ill, —*ee-ii-kk-qq.*

Zwoboda Press Mfg. Co., 460 W. 34th St., New York, N. Y.—*a-o-i-o-s-hh.*

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PROOF PAPER CABINETS
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PROOF AND TEST PRESSES

a. Automatic
b. Composing Room Cylinders
c. Curved Plate
d. Flat Bed
e. Hand
f. Hand Roller
g. Letterpress
h. Lithographic and Offset
i. Multicolor
j. Power
k. Rotogravure
l. Web

American Printing Machinery Co., 41 Hanover St., Boston, Mass.—*g.*

***Challenge Machinery Co., The, Grand Haven, Mich.** **21**

***Cottrell, C. B., & Sons Co., P. O. Drawer 515, Westerly, R. I.**—*d-e-f-g*..... **10**

*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.—*c-d-i-j.*

General Printing Ink Corp., 100 Sixth Ave., New York, N. Y.; Rutherford Machinery Co. Div.—*h.*

*Hacker Mfg. Co., 320 S. Honore St., Chicago, Ill.—*d-e-f-g-j.*

Hoe, R., & Co., 138th St. and E. River, New York, N. Y.—*g-j*..... **84-85**

Lanston Monotype Machine Co., 24th at Locust, Philadelphia, Pa.—*h*..... **15**

*Morgans & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.—*e-f-g.*

***Ostrander-Seymour Co., The, 1900 S. 54th St., Cicero Sta., Chicago, Ill.**—*d-e-f-g*..... **30**

Pitman Co., Harold M., 51st Ave. and 33rd St., Cicero, Ill.—*d-e-g.*

***Vandercook & Sons, Inc., 900 N. Kilpatrick Ave., Chicago, Ill.**—*a-b-d-e-g-i-j*..... **27**

*Wesel, F., Mfg. Co., Scranton, Pa.—*d-e-g-i*

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PULLEYS (SPEED REGULATING) *A.T.F.*

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PUSH BUTTON CONTROL AND SIGNAL STATIONS FOR ELECTRICAL DRIVE EQUIPMENT
See Dynamos, etc.

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See Metal Feeders, etc. See also Type Metal Thermometers, etc.

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QUADRUPLE AND QUARTO CHASES
See Chases, etc.

QUADS
See Leads and Rule.

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RABBETED BASES
See Plate Mounting Equipment.

RACKS
See Cabinets.

RADIAL ARM ROUTERS
See Saw Trimming, etc., Machinery.

RAG CANS
See Cans.

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See Printing Presses.

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Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill. 151
Stokes, A., Co., The, S. Main St., Hudson, O.
Wood, Nathan & Virkus Co., Inc., 112 Charleston St., New York, N. Y.

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See Chases.

RECTANGULAR SCREEN HOLDERS
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See Ink.

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See Magnifying and Reducing Glasses.

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See Paper Reels

REFORMERS, CURVED PLATE
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See Plate Mounting Equipment.

REGISTER NUTS
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REGISTER PUNCHES (PLAIN AND MICROSCOPE)
See Plate Mounting Equipment.

REGISTER QUOINS
See Chases, etc.

REGISTER TABLES
See Line-Up and Register Machines Systems and Tables.

REGLET
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REVOLVING MATERIAL RACKS
See Cabinets.

REWINDING MACHINERY.
See Slitting and Rewinding Machinery.

REWIND ROTARY PRESSES
See Printing Presses.

RIBBON GOLD
See Foil.

RIGID BED PROOF PRESSES
See Proof and Test Presses.

ROLL CLOTH CUTTERS AND SLITTERS
See Slitting and Rewinding Machinery.

ROLL FEED FLAT BED PRESSES
See Printing Presses.

ROLL FEED ROTARY PRESSES
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ROLL FEED STAMPING PRESSES
See Die Stamping, etc., Presses.

ROLL FEED UNITS
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Vogt Roller Co., Inc., 222 S. 12th St., Louisville, Ky.—*a-e*
Vulcan Proofing Co., 58th St. and 1st Ave., Brooklyn, N. Y.—*c-d-e.* 23
Western Roller & Machine Co., 615 19th St., Denver, Colo.—*a.*
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Winn & Goodman, 350 Sansome St., San Francisco, Calif.—*a.*
Yeager Process Co., Marion, O.—*b.*

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Process Rubber Plate Co., 610 W. Van Buren St., Chicago, Ill.
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Empire Type Foundry, Delevan, Cattaraugas Co., N. J.—*j.*

Flexideal Dry Mat Co., 21 West St., New York, N. Y. 138

Goss Printing Press Co., The, 1535 S. Paulina St., Chicago, Ill.—*a-b*.....Inside Front Cover-1

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*Miller Printing Machinery Co., 1117 Reedsdale Ave., Pittsburgh, Pa.—*c-d-e-g.*

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*Monomelt Co., Inc., The, 1611 Polk St., N.E., Minneapolis, Minn.—*k.*

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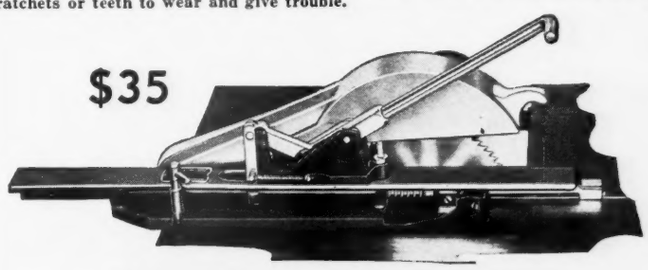

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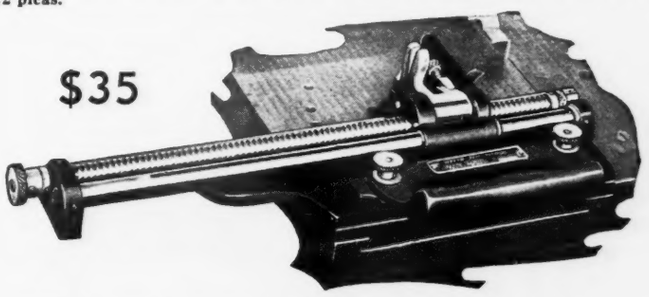

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Hickok, W. O., Mfg. Co., 9th and Cumberland Sts., Harrisburg, Pa.—*a.*

Hobbs Mfg. Co., 26 Salisbury, Worcester, Mass.—*a.*

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SHEET CUTTERS (INTERMITTENT FEED AND ROTARY)
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SHEET DELIVERY ROTARY PRESSES
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SHEET DRYERS
See Electric and Gas Heaters.

SHEET FEED OFFSET PRESSES
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SHEET FEED ROTARY MULTI-COLOR PRINTING PRESSES
See Printing Presses.

SHEET HEATERS
See Electric and Gas Heaters; or Die Heaters.

SHEET LAPPING DEVICES
*Lindbladh Corp., The, 40 Court St., Boston, Mass.

SHEET PARAFFINING MACHINES
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SILK SCREEN PROCESS
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SINGLE MOTOR CONTROLS, MAGAZINE TYPE
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SLIP SHEET SEPARATING MACHINES
*Chambers Bros. Co., 52nd and Media Sts., Philadelphia, Pa.

SLITTING AND PRINTING MACHINES
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SLITTING AND REWINDING MACH. *A.T.F.*
Cameron Machine Co., 61 Poplar St., Brooklyn, N. Y.
Davidson Perforator Corp., 7153 68th Pl., Brooklyn, N. Y.
Hoff, Leslie D., 52 N. Arlington Ave., East Orange, N. J.
Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
Jacques, John, & Son, 93 Webster St., Worcester, Mass.
Kohler Bros., 410 N. Michigan Ave., Chicago, Ill.
Pine Ihrig Machine Co., 36-38 Marion St., Oshkosh, Wis.
Staude, E. G., Mfg. Co., 2675 University Ave., St. Paul. Minn.
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SMASHERS (BOOK)
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SPECIAL AND SPECIALLY DESIGNED PRINTING PRESSES
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SPECIAL CAMERAS, DESIGNERS AND BUILDERS
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SPECIAL CHASES TO ORDER
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STANDING PRESSES
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STANDS (TYPE, ETC.)
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STAPLING MACHINES AND STAPLES *A.T.F.*
Acme Staple Machine Co., 1643 Haddon Ave., Camden, N. J.
Hotchkiss Sales Co., The, 10 Hoyt St., Norwalk, Conn

STAR WHEELS
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STATIC NEUTRALIZERS AND INK OXIDIZERS
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STEAM DRYING TABLES
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STEEL COLUMN AND HEAD RULE
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STEEL COMPOSING ROOM EQUIPMENT
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STEEL CROSS CUT PERFORATING RULE
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STEEL CUTTING PLATES
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STEEL DIE PRESSES
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Printing EQUIPMENT Engineer will help you find it

STEEL DIE STAMPING INKS
See Ink.

STEEL ELECTRO BEARERS
See Roller Bearers.

STEEL GALLEYS
See Galleys.

STEEL NEWSPAPER BASES
See Plate Mounting Equipment.

STEEL PLATE PRINTING PRESSES
See Die Stamping, etc., Presses.

STEEL RULE BENDERS AND CUTTERS
See Cutting Rule, Bending, etc., Machinery

STEEL RULE DIES MADE TO ORDER
*Richards, J. A., Co., 903 N. Pitcher St., Kalamazoo, Mich.

STEEL TYPE
See Type.

STENCIL CUTTING MACHINES
Marsh Stencil Machine Co., 707 E. B St., Belleville, Ill.
Selectasine Patents Co., 558 Sacramento St., San Francisco, Calif.

STENCIL PROCESS PRINTING MACHINES. STENCIL SILK AND SUPPLIES
a. Machines *b.* Silk *c.* Supplies
Brown-Lindsay Paint Co., 1420 Center St., Chicago, Ill.—*a-b.*
Elliott Addressing Machine Co., The, 143 Albany St., Cambridge, Mass.—*a-c.*
Marsh Stencil Machine Co., 707 E. B St., Belleville, Ill.—*c*
Naz-Dar Co., 4014 N. Rockwell St., Chicago, Ill.—*a-b-c*
Orville Simpson Co., 1230 Knowlton St., Cincinnati, O.—*a.*

STEP AND REPEAT OR PHOTO COMPOSING MACHINES
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STEREOTYPE BASES AND BLOCKS
See Plate Mounting Equipment.

STEREOTYPE CASTING BOXES OR MOUNDS
See Stereotypers' Machinery.

STEREOTYPE CHASES
See Chases.

STEREOTYPE EQUIPMENT
See Stereotypers' Machinery.

STEREOTYPE FLONGS OR MATS
See Stereotypers' Machinery; also Paper and Board.

STEREOTYPE GAUGES
See Gauges.

STEREOTYPE MATRIX BACK-UP STRIPS
See Stereotypers' Machinery.

STEREOTYPE MATRIX DRYING TABLES
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STEREOTYPE MATRIX MOLDING PRESSES
See Stereotypers' Machinery.

STEREOTYPE MATRIX SCORCHERS
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STEREOTYPE METAL
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STEREOTYPE METAL LADLES
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STEREOTYPE PLATE CONVEYORS AND DROPPERS
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STEREOTYPE PLATE CUTTING OFF CYLINDERS
See Stereotypers' Machinery.

STEREOTYPE PLATE FINISHING, COOLING AND DRYING MACHINES
See Stereotypers' Machinery.

STEREOTYPE PLATE MAKE READY SHEETS
See Stereotypers' Machinery.

STEREOTYPE PLATE MOLDS
Flat and Curved. See Stereotypers' Machinery.

STEREOTYPE PLATE SHAVING AND SQUARING MACHINES
See Stereotypers' Machinery; also Sawing, Trimming, etc., Machinery.

STEREOTYPE POT HEATERS
See Stereotypers' Machinery; also Metal Feeders, etc.

STEREOTYPE PRESSES
See Stereotypers' Machinery, etc.

STEREOTYPE RATCHETS
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STEREOTYPE SAWS
See also Sawing, Trimming, etc., Machinery.

STEREOTYPERS' AND ELECTROTYPERS' MACHINERY, ACCESSORIES, TOOLS AND SUPPLIES *A.T.F.*

Bending, Boring, Curving, Roughing and Shaving Machinery; Blankets; Bumping-Up Presses; Casting Boxes and Machines; Correcting Machines; Cooling and Drying Tables; and Apparatus; Dry Mats and Humidors; Finishing, Cooling and Drying Machines; Finishing Slabs, Turtles, and Tools; Gauging Machines; Matrix Papers, Parting Powder, Rolling Machines and Presses, Scorchers, Tissue Holders; Metal Dross Sifters, Ladles and Skimmers; Molds; Reforming, Solidifying and Straightening Presses, etc.; See also Metals; Metal Feeders, etc.; Sawing, Trimming, etc.; Machinery, Shears, etc.

a. Bending, Boring, Curving, Roughing and Shaving Machines
b. Blankets
c. Bumping-Up Presses
d. Casting Boxes and Machines
e. Correcting Machines
f. Cooling and Drying Tables
g. Direct Pressure Machines
h. Dry Mats
i. Finishing Slabs, Turtles and Tools
j. Finishing, Cooling and Drying Machines
k. Formers
l. Gauging Machines
m. Humidors
n. Matrix Papers
o. Metal Dross Sifters, Ladles and Skimmers
p. Molds
q. Parting Powder
r. Plate Shavers
s. Reforming, Solidifying and Straightening Presses
t. Rolling Machines
u. Routing Machines
v. Sawing and Trimming Machinery
w. Scorchers
x. Tissue Holders
y. Trade Mats and Stereotypes
z. Parts, Gears, etc.
aa. Plate Conveyors and Drops
bb. Stereotypers' and Electrotypers' Equipment and Supplies

American Publishers Supply, P. O. Box 131, West Lynn, Mass.—*b-t-w, and stereotype supplies; composing room accessories, and pressroom supplies*.. **16-17-18**

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*Claybourn Corp., 3713 N. Humboldt Ave., Milwaukee, Wis.—*a-d-g-j-w*.

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Dobler & Mudge, 113 Hopkins Pl., Baltimore, Md.
Dom, G. C., Supply Co., 125 Pearl St., Cincinnati, O.— *bb*

Duplex Printing Press Co., The, Battle Creek, Mich.—*d-j-o-r-s-t*..... 14

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Goss Printing Press Co., The, 1535 S. Paulina St., Chicago, Ill.—*a-d-f-r-t-u-v* ..... **Inside Front Cover**

Hammond Machinery Builders, Inc., 1615 Douglas Ave., Kalamazoo, Mich.—*d-p-u-y*.

Hoe, R., & Co., 138th St. and E. River, New York, N. Y.—*c-g-i-p-t-x-bb* **84-85**

Huston, David, Plainfield, N. J.

Jampol Co., The, 11 Park Pl., New York, N. Y.—*aa*.

Lake Erie Stereotype Equipment Co., Kenmore Sta., Buffalo, N. Y.—*g*..... 34

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Montgomery & Bacon, 2 Elizabeth St., Towanda, Pa.—*d*.

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Premier Flong Co., 258 Broadway, New York, N. Y.—*h*.

Redimat Sales Co., 406 Burk-Burnett Bldg., Fort Worth, Tex.—*h*.

Reed Roller & Supply Co., Inc., 415-17 Jackson St., San Francisco, Calif.

Royle, John, & Sons, Straight and Essex Sts., New York, N. Y.—*a*

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*Stereotype Equipment Co., 3628-30 Lincoln Ave., Chicago, Ill.—*b-d-k-m-o-p-t-bb*.

Stereotype Mfg. Corp., 107 N. Wacker Dr., Chicago, Ill.
Surface Combustion Co., 2375 Dorr St., Toledo, O.
*Wesel, F., Mfg. Co., Scranton, Pa.—*g-r-j-l-m-n-o-p-r-u-v-w*.

White Mfg. Co., 1227 W. Beardsley Ave., Elkhart, Ind.—*r*.

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STITCHING MACHINES AND STITCHING WIRE *A.T.F.*

a. Machines *b.* Wire

American Steel & Wire Co., 208 S. LaSalle St., Chicago, Ill.—*b*.

Chicago Steel & Wire Co., 10257 Torrence Ave., Chicago, Ill.—*b*.

***Christensen Machine Co., The, 100 Fourth St., Racine, Wis.**—*a-b* 11

*Dexter Folder Co., 28 W. 23rd St., New York, N. Y..—*a*
Gitzendanner-Muller Co., Inc., 15 Vanderwater St., New York, N. Y.—*a*.
Hotchkiss Sales Co., The, 10 Hoyt St., Norwalk, Conn.—*a*.
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Lawson, E. P., Co., Inc., 424 W. 33rd St., New York, N. Y.—*a-b*.

Martin Machinery Corp., 136 Liberty St., New York, N. Y.—*a-b*.
Morrison, J. L., Co., Div. Harris-Seybold-Potter Co., Niagara Falls, N. Y.—*a*.
New Jersey Wire Stitching Machine Co., 604 S. Second St., Camden, N. J.—*a*.

Nygren-Dahly Co., 218 N. Jefferson St., Chicago, Ill.—*a*..... 151

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Pubich, W. R., Mfg. Co., 2855 N. Rockwell St., Chicago, Ill.—*a*.
*Rosback, F. P., Co., Box 675, Benton Harbor, Mich.—*a*.
Saranac Machine Co., 376 W. Main St., Benton Harbor, Mich.
Seneca Wire & Mfg. Co., The, Fostoria, O.
*Sheridan Co., T. W. & C. B., 135 Lafayette St., New York, N. Y.—*a*.
Wanner Co., The, 720 S. Sherman St., Chicago, Ill.—*b*.

STOCK TABLES
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STONE GRINDING AND PLANING MACHINES
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STONE IMPOSING SURFACES
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STOOLS
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Cutler-Hammer, Inc., 542 N. Twelfth St., Milwaukee, Wis.
General Electric Co., Schenectady, N .Y...... **80-81**
Independent Electric Machinery Co., 300 Southwest Blvd., Kansas City, Mo.

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TAB CUTTING MACHINES
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See Adhesives.

TABBING PRESSES

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.**..... **60A-60B-62-90**

*Murphy, Jos. E., 91 Exchange St., Worcester, Mass.

TABLE SHEARS
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TABLES *A.T.F.*
Bindery, Mailing, and Make-Ready, etc., including Work Benches. For Form Tables see Form Lifts, etc.; for Imposing Tables see also Imposing Frames, etc.; for Line-Up and Registering Tables see Line-Up, etc.; Devices; for Steam Drying Tables see Stereotypers' Machinery.

Becker-Kowalick Co., 1722 W. Austin Ave., Chicago, Ill.
Clark, Geo. P., Co., Canal Bank, Windsor Locks, Conn.
Globe-Wernicke Co., The, Cincinnati, O.
*Hall, Norman F., Co., Inc., 167 First St., San Francisco, Calif.
Hoerth, A. J., & Co., 608 S. Dearborn St., Chicago, Ill.
Jampol Co., The, 11 Park Pl., New York, N. Y.
*Morgans & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.
Pleger, John J., Co., 609 W. Lake St., Chicago, Ill.
*Richards, J. A., Co., 903 N. Pitcher St., Kalamazoo, Mich.
Thomson Cabinet Co., Ludington, Mich.
*Verrinder, E. A., 827 Alvardo St., Redlands, Calif.

TABLET BINDING MACHINES
See Bookbinding Machinery.

TABLET KNIVES
See Tools.

TABLETING PRESSES
See Tabbing Presses.

TABULAR SYSTEMS FOR MACHINE COMPOSITION
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TAG AND TICKET EMBOSSING, PRINTING, METAL EYELETTING AND PAPER PATCHING MACHINES
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TAP LOOPING OR STRINGING MACHINES
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TAKE SLUGS
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TALLY TICKET FOLDING MACHINES
See Feeders, Folders, etc.

TAPE END TRIMMERS
See Bookbinding Machinery.

TAPE MOISTENERS

DeJonge, Louis, & Co., Inc., 73 Duane St., New York, N. Y.
Felt Products Mfg. Co., 1508 Carroll Ave., Chicago, Ill.

*Fuller, E. C., Co., Inc., 28 Reade St., New York, N. Y.
Gilmer, L. H., Co., Cottman and Keystone, Philadelphia, Pa.
House, C. W., & Sons, Inc., 505 Fifth Ave., New York, N. Y.
Metal Specialties Mfg. Co., 3200 W. Carroll Ave., Chicago, Ill.
Mid-States Gummed Paper Co., 2433 S. Damen Ave., Chicago, Ill.
Mashau Package Sealing Co., 44 Franklin St., Nashua, N. H.
Victor Tape Co., 2689 Holly Ave., Chicago, Ill.

TAPE PRINTING MACHINES
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TAR OR BINDERS' BOARD
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TEMPERATURE CONTROL AND REGISTERING DEVICES
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THERMOMETERS
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THREAD BOOK SEWING MACHINES
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THREAD STITCHING MACHINES
See Knotting, etc., Machines.

THREAD AND TWINE (Binders')
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THREE KNIFE TRIMMERS
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THUMB INDEXERS (AUTOMATIC)
See Round Corner Cutters, etc.

TICKET PRINTING PRESSES
See Printing Presses.

TIERING MACHINES
See Paper Lifts.

TIE-UP OR PAGE FRAMES
See Chases, etc.

TIME CLOCKS, RECORDERS AND STAMPS
Barton Mfg. Co., 4 Cortlandt St., New York, N. Y.
Cincinnati Time Recorder Co., Inc., 1733 Central Ave., Cincinnati, O.
International Time Recording Co. of N. Y., Inc., 270 Broadway, New York, N. Y.
Joslin, A. D., Mfg. Co., Manistee, Mich.
Kastens, Henry, Co., 418 W. 27th St., New York, N. Y.
Simplex Time Recorder Co., Gardner, Mass.

TIME TABLE REFOLDING MACHINES
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TIN AND METAL DECORATING OFFSET PRESSES
See Printing Presses.

TIN BRONZING MACHINES
See Bronzing Machines.

TIN MOUNTING MACHINES AND TIN MOUNTING STRIPS, BRASS LOOPS, ETC.
American Finishing Co., 500 S. Peoria St., Chicago, Ill.
Grammes, L. F., Sons, Inc., 344 Union St., Allentown, Pa.
Stuebing Automatic Machine Co., 2425 Spring Grove St., Cincinnati, O.

TIN PRINTING PRESSES
See Printing Presses.

TIPPING MACHINES
See Gluing, Gumming, etc., Machinery.

TISSUE LEAF
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TOGGLE HOOKS
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TOOL CABINETS
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TOOL GRINDERS
See Sawing, Trimming, etc., Machinery.

TOOLING PRESSES
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TOOLS
Back Saws, Bobkins, Bone Folders, Eyelet Pliers, Mallets, Miter Boxes, Tweezers, Tympan Stabbers, etc. See also Knives; Bookbinding Machinery for Binding Tools; and Stereotypers' Machinery for Stereotypers' Tools.

***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J. 60A-60B-62-90**
Brown & Sharpe Mfg. Co., Providence, R. I.
Fort Hill Engraving Co., 113 Pearl St., Boston, Mass.
Hackensack Specialty Mfg. Co., 200 Atlantic Ave., Hackensack, N. J.
Hoe, R., & Co., 138th St. and E. River, New York, N. Y. 84-85
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Porte Pub. Co., Salt Lake City, Utah.
***Rouse, H. B., Co., 2214 Ward St., Chicago, Ill. 25**
Sebastian Lathe Co., 3rd and Philadelphia Sts., Covington, Ky.
Steel Products Engineering Co., 1060 W. Columbia St., Springfield, O.
Triplet Gauge Co., Inc., 1 Dover St., New York, N. Y.

TRADE EMBLEMS A. F. T.
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TRANSFERING MACHINES, TRANSFER PAPER AND TRANSFER PRESSES
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TRANSFORMERS, ELECTRICAL
General Electric Co., Schenectady, N. Y. 80-81

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TRIMMER KNIVES
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See Cutting and Trimming Machines.

TRIMMERS (SAW)
See Sawing, Trimming, etc., Machinery.

TRUCKS
For Form Trucks see Form Lifts, etc.
Allied Steel Equipment Co., Lapeer, Mich.
American Publishers Supply, Box 31, West Lynn, Mass. 16-17-18
*American Steel Chase Co., 122 Centre St., New York, N. Y.
*Anderson, C. F., & Co., 3225 Calumet Ave., Chicago, Ill.
Barrett-Cravens Co., 3255 W. 30th St., Chicago, Ill.
***Brandtjen & Kluge, Inc., 653 Gaultier St., St. Paul, Minn. 57**
Central Machine Works, 437 S. Senate Ave., Indianapolis, Ind.
Clark, Geo. P., Co., Canal Bank, Windsor Locks, Conn.
***Cline Electric Mfg. Co., 211 W. Wacker Dr., Chicago, Ill. 13**
Economy Engineering Co., 2643 W. Van Buren St., Chicago, Ill. 151
Fairbanks Co., Inc., The, 393 Lafayette St., New York, N. Y.
Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
*Haywood, C. B., Co., 431 N. W. Glisan St., Portland, Ore.
Ideal Stitcher & Mfg. Co., 100 Fourth St., Racine, Wis.
Jampol Co., The, 11 Park Pl., Park-Murray Bldg., New York, N. Y.
*Kohler Bros., 410 N. Michigan Ave., Chicago, Ill.
Krasilovsky, S., & Bros., Inc., 216 Centre St., New York, N. Y. 151
Lewis-Shepard Co., 125 Walnut St., Watertown Sta., Boston, Mass.
Morgans & Wilcox Mfg. Co., 69 Hanford St., Middletown, N. Y.
*Monomelt Co., The, Inc., 1611-15 Polk St., Minneapolis, Minn.
Nutting Truck Co., 1002 W. Division St., Faribault, Minn.
Omaha Folding Machine Co., 2009 Cumming St., Omaha, Neb.
Revolvator Co., 340 Garfield Ave., Jersey City, N. J.
Scott, Walter, & Co., Plainfield, N. J.
*Southworth Machine Co., 30 Warren Ave., Portland, Me.
Thompson Cabinet Co., Ludington, Mich.
Truscon Steel Co., The, Youngstown, O.
Tucker & Dorsey Mfg. Co., 302 S. State St., Indianapolis, Ind.
Yale & Towne Mfg. Co., 4530 Tacony St., Philadelphia, Pa.

TUBE PRINTING AND COATING MACHINES (METAL COLOR)
General Printing Ink Co., Rutherford Machinery Co. Div., 100 Varick St., New York, N. Y.

TURBO HUMIDIFIERS
See Air and Paper Conditioning.

TURTLES (FINISHING AND TOOLS)
See Stereotypers' Machinery.

TWO COLOR AUTOMATIC JOB PRESSES
See Printing Presses.

TWO COLOR PRESSES
See Printing Presses.

TWO REVOLUTION CYLINDER PRESSES
See Printing Presses.

TWO SHEET ROTARY PRESSES
See Printing Presses.

TYING MACHINES
See Bundle Tying and Packaging Machines.

TYMPAN PAPER
See Paper and Board.

TYMPAN PAPER HOLDERS
See Paper Holders.

TYMPAN RUBBER
See Blankets.

TYMPAN STABBERS
See Tools.

Printing EQUIPMENT Engineer Offers to Assist Any Mechanical Executive Locate the name and address of any Manufacturer of Printing Equipment or Supplies

TYPE *A.T.F.*
Aluminum, Brass, Casting Machine Matrix, Metal Foundry, Steel and Wood.
a. Aluminum
b. Brass
c. Casting Machine Matrix
d. Metal Foundry
e. Steel
f. Wood
g. Borders

Abrams Printing Machry Co., M. L., 1639 Superior Ave., N.E., Cleveland, O.—*d*.....121
Acme Wood Type Mfg. Co., 61 Beekman St., New York, N. Y.—*f*.
***American Type Founders Sales Corp., 200 Elmora Ave., Elizabeth, N. J.—*d-g* 60A-60B-62-90**
*American Wood Type Mfg. Co., 270 Lafayette St., New York, N. Y., and 608 S. Dearborn St., Chicago, Ill.—*f*.
***Bauer Type Foundry, Inc., 235 E. 45th St., New York, N. Y.—*d-g*.....115**
Continental Type Founders Assn., Inc., 228 E. 45th St., New York, N. Y.—*d*.
Empire Type Foundry, Delevan, Cattaraugus Co., N. Y.—*b-d-g*.
Empire Wood Type Mfg. & Engrvg Co., 252 Water St., New York, N. Y.—*f*.....151
*Hamilton Mfg. Co., 1315 18th St., Two Rivers, Wis.—*f*.
Imprint Matrix Co., Moravian Falls, N. C.—*c*.
Judson Type, Inc., 119 W. 23rd St., New York, N. Y.—*d-g*.
*Kelsey Press Co., The, 62 Colony St., Meridan Conn.—*d*.
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y.—*b*.....131
M. & L. Typefoundry, 4001 Ravenswood Ave., Chicago, Ill.—*d*.
Meyer, John C., & Son, 129-137 N. Twelfth St., Philadelphia, Pa.—*d*.
Missouri Brass Type Foundry Co., Inc., 1620 N. 22nd St., St. Louis, Mo.—*b*.
Missouri-Central Type Foundry, 703 E. Murdock Ave., Wienita, Kan.—*d*.
Monsen & Son, Inc., Thormod, 730 N. Franklin St., Chicago, Ill.—*d*.
*Montgomery & Bacon, Elizabeth and Railroad Aves., Towanda, Pa.—*d*.
New Jersey Type Foundry, 295 Lafayette St., New York, N. Y.—*d*.....151
Northwest Type Foundry, 510 Fifth Ave., Minneapolis, Minn.—*d*.
Perfection Type, Inc., 141 E. 5th St., St. Paul, Minn.—*d*.
Rulex Type Corp., 549 S. Wells St., Chicago, Ill.—*d-g*.
Sterling Type Foundry, Vermontville, Mich.—*d*.
Stevens, F. H., Type Co., 407 Atlantic Ave., Boston, Mass.—*d*.
Turner Type Founders, Inc., 1729 E. 22nd St., Cleveland, O.—*d*.

TYPE BORDERS
See Type.

TYPE CABINETS, CASES, RACKS AND STANDS
See Cabinets.

TYPE CASE CLEANERS
See Blowers.

TYPE CASTER METAL
See Metal.

TYPE CASTING AND SETTING MACHINES
See Composing Machines.

TYPE CLEANER
See Cleaning Compounds.

TYPE CLEANING MACHINES (AIR)
See Blowers.

TYPE COMPUTERS, GAUGES OR MEASURES AND TYPE HIGH GAUGES
See Gauges.

TYPE HIGH GALLEYS
See Galleys, etc.

TYPE HIGH MACHINES OR PLANERS
See Sawing, Trimming, etc., Machinery; also see Gauges.

TYPE IMPRESSION PLATES FOR OFFSET PRESSES
See Aluminum, Copper and Zinc Plates.

TYPE METAL THERMOMETERS, HYGROMETERS, ETC.
Mishawaka Industrial Instrument Mfg. Laboratory, 936 Washington Ave., Mishawaka, Ind.
Philadelphia Thermometer Co., The, 915 Filbert St., Philadelphia, Pa.

TYPE METAL AND TYPE METAL CLEANER OR FLUX
See Metals, etc.

TYPE PRINTING PRESSES
See Printing Presses.

TYPE RULES
See Gauges.

TYPE STICKS
See Composing, etc., Sticks.

TYPE WASH
See Cleaning Compounds.

TYPESETTING MACHINE DRIVES OR MOTORS
See Dynamos, etc.

TYPEWRITER PLATES
See Aluminum and Zinc Plates.

A new medium is struggling into being that will lend new wings to advertising. New types too, have power to add vividness to words and thoughts. Gillies Gothic, newest of all the Bauer types, is guaranteed to let fresh air into whatever advertising message you're wrestling with today. *Gillies Gothic* comes in two delightful versions, cut from 18 to 84 point. Born in the shadow of Hollywood, in the brain of that gifted Los Angeles designer, William S. Gillies, Gillies Gothic is what the movie folks would call a smash hit. It possesses a fresh and virile artlessness, but beneath its dash and abandon you'll find shrewd mastery of form... and a subtle loveliness, cunningly contrived.

The Bauer Type Foundry · Inc
TWO-THIRTY-FIVE EAST FORTY-FIFTH STREET, NEW YORK

TYPEWRITTEN LETTER PRINTING MACHINES
See Printing Presses.

TYPOGRAPHS
See Counters, etc.

U

UNIT OR PORTABLE AIR CONDITIONERS
See Air and Paper Conditioning.

UNIT TYPE PRESS DRIVES
See Dynamos, etc.

UNIVERSAL BLOCKS
See Plate Mounting Equipment

UNIVERSAL UNIT PRESSES
See Newspaper under Printing Presses.

UPRIGHT TRUCKS
See Trucks.

V

VACUUM NEGATIVE PRINTERS
See Lithographic and Offset Plate Making Equipment and Supplies.

VACUUM PRINTING FRAMES
See Lithographic and Offset Plate Making Equipment and Supplies.

VARIABLE SPEEDMOTORS
See Dynamos, Motors, etc.

VARIABLE SPEED TRANSMISSIONS
See Dynamos, etc.

VARIABLE VOLTAGE SYSTEMS
See Dynamos and Motors.

VARNISH DRYING OVENS
See Gluing, Gumming, etc., Machinery.

VARNISHERS
See Ink.

VARNISHING MACHINES
*Chambers Bros. Co., 52nd St. and Media, Philadelphia, Pa.
Currier, Cyrus & Sons, Inc., 365 Market St., Newark, N. J.
Economy Machine Products Co., 5214 Lawrence Ave., Chicago, Ill.
Hollingsworth, William, Machine Co., 227-229 Holliday St., Baltimore, Md. 116
Wagner, Chas., Litho Machinery Co., Inc., 51 Park Ave., Hoboken, N. J.

VENTILATING SYSTEMS
See Air and Paper Conditioning.

VERTICAL BRASS RULE FOR TABULAR SLUGS
See Broaches, etc.

VERTICAL RULE SLUG CASTING ATTACHMENTS
See Composing and Slug and Type Casting Machines.

VIBRATION ELIMINATING AND WEAR RESISTING FLOORS AND DEVICES
Cork and Spring Suspension Foundations and Wood Block Floors.
American Abrasive Metals Co., Irvington, N. J.
Armstrong Cork Products Co., Lancaster, Pa.
Jampol Co., The, 11 Park Pl., New York, N. Y.
Korfund Co., Inc., 4824 32nd Pl., Long Island, N. Y.
Stonhard Co., 401 N. Broad St., Philadelphia, Pa.
Vibration Eliminator Co., 4126 37th St., Long Island City, N. Y. 151

VIBRATORS, INK
See Ink Fountains.

VISES, ROUTER
See Sawing, Trimming, etc., Machinery.

W

WASHUP MACHINES
See Lithographic and Offset Plate Making Equipment and Supplies.

WASTE CANS
See Cans.

WASTE PAPER BALERS AND RECEPTACLES
See Baling Presses.

WATER COLOR INK
See Ink.

WATER COLOR ROLLERS
See Rollers.

WAX AND LEAD MOULDING PRESSES
See Electrotypers' Equipment.

WAX RULING MACHINES
General Printing Ink Corp., Rutherford Machinery Div., 100 Varick St., New York, N. Y.

. . . Headquarters for

VARNISHING GUMMING COATING *and* DRYING MACHINES

• We specialize in the manufacture of varnishing, gumming and coating machines with metal dry box for applying varnish, gum or other liquid or semi-liquid material to paper stock or cardboard. These machines are fitted with the latest mechanical working conveniences essential to perfect workmanship. They are of substantial construction throughout and are built with cylinder 20″, 26″ and 30″ diameter of various lengths as required.

• This company is also headquarters for die cutters, smashing machines, blowers, offset and rotary press roller cleaners, automatic sheet conveyors and bronzer feeders. Prices and information about any or all of these machines is furnished gladly upon request.

Wm. Hollingsworth Machine Co.

227-229 Holliday St. . . Baltimore, Md.

WAXING MACHINERY
See Paraffining and Waxing Machines.

WEB BREAKERS
General Electric Co., Schenectady, N. Y. 80-81

WEB PRESSES
See Printing Presses.

WEB FEED OFFSET PRESSES
See Printing Presses.

WEB ROTOGRAVURE PRESSES
See Printing Presses.

WEB ROTARY PRESSES
See Printing Presses.

WET MATS
See Stereotypers' Machinery.

WIPING CLOTH AND TOWELS
Calloway Mills, 295 5th Ave., New York, N. Y.

WIRE
See Stitching Machines.

WIRE BOOK SEWING MACHINES
Krause, Karl, U. S. Corp., 55-57 Van Dam St., New York, N. Y. 131

WIRE STITCHER FEEDERS
See Feeders, Folders, etc.

WIRE STITCHING MACHINES
See Stitching Machines.

WOOD BLOCK FLOORS
See Vibration Absorbing, etc.

WOOD FURNITURE AND REGLET
See Furniture and Reglet.

WOOD POSTER BLOCKS
Empire Wood Type Mfg. & Engrvg. Co., 252 Water St., New York, N. Y. 151

WOOD QUOINS
See Chases.

WOOD TYPE
See Type

WORK BENCHES
See Tables.

WORK HOLDERS (FOR SAW TRIMMERS)
See Sawing, Trimming, etc., Machinery.

WRAPPER PRINTING MACHINES
See Printing Presses.

WRAPPER PRINTING AND WRAPPING MACHINES (FOR MAGAZINES)
See Mailers.

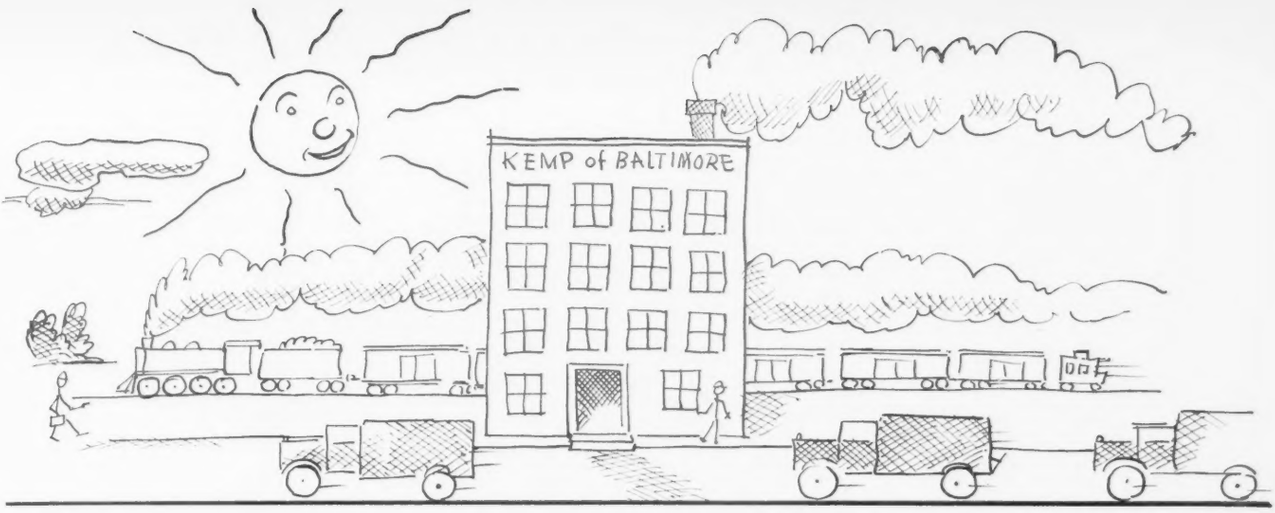
WRAPPING MACHINES (FOR CATALOGS AND MAGAZINES)
See Bundle Tying and Packaging Machines.

Z

ZINC PLATE GRAINING MACHINES
See Lithographic and Offset Plate Making Equipment and Supplies.

ZINC PLATES FOR LETTERPRESS, LITHOGRAPHERS AND OFFSET PRINTERS
See Aluminum, Copper and Zinc Plates.

Printing
Equipment
Engineer
Will
Help
You
Find It



KEMP is now shipping the largest volume of orders in its 57 years. The Kemp factory is running full blast. And much of this record production is in immersion melting equipment for newspaper stereotype departments.

We report these facts in all humbleness and with gratitude in our hearts for the hundreds of good newspaper friends who have made this possible. And too, we mention it because we know of no better way of suggesting to newspaper men who do not know Kemp Immersion Melting that they *should*. They certainly should—when Kemp guarantees a fuel saving of 40% or more. Make a note to write The C. M. Kemp Mfg. Co., 405 E. Oliver St., Baltimore, Md.

KEMP of BALTIMORE

Blankets

Continued from Page 60

progressive step can be set down as the cause of greater variations occurring in plate thickness. This statement is wholly uninfluenced by personal opinion. Suffice it to say, however, that the stern demand for better printing by those who pay the bill has increased the interest in a type of packing which has a tendency toward firmer elements. It is apparent, then, in some respects that blanket design has progressed to a point that indicates the necessity for increased efforts in the departments ahead of the pressroom.

Because of the lack of these two qualities (firmness and resilience) some pressmen discontinued the use of felt blankets and resorted to various combinations of packing. For those who prefer it, felt is now obtainable in a consistency that will not recede and which possesses a degree of resilience that eliminates all danger of bolstering. These desirable and necessary qualities are to be found in several types of blankets now being offered to the industry. These blankets are the result of extensive studies made over a period of years. The studies were made to ascertain existing weaknesses. Application of sound engineering principles resulting from these studies corrected those faults which formerly retarded the advance of newspaper printing. Blankets are no longer made by rule-of-thumb methods.

An eminent American professor said that "No good can come of ancestor worship." This statement can be applied to impression cylinder packing or, for that matter, to most materials being used in manufacturing processes today.

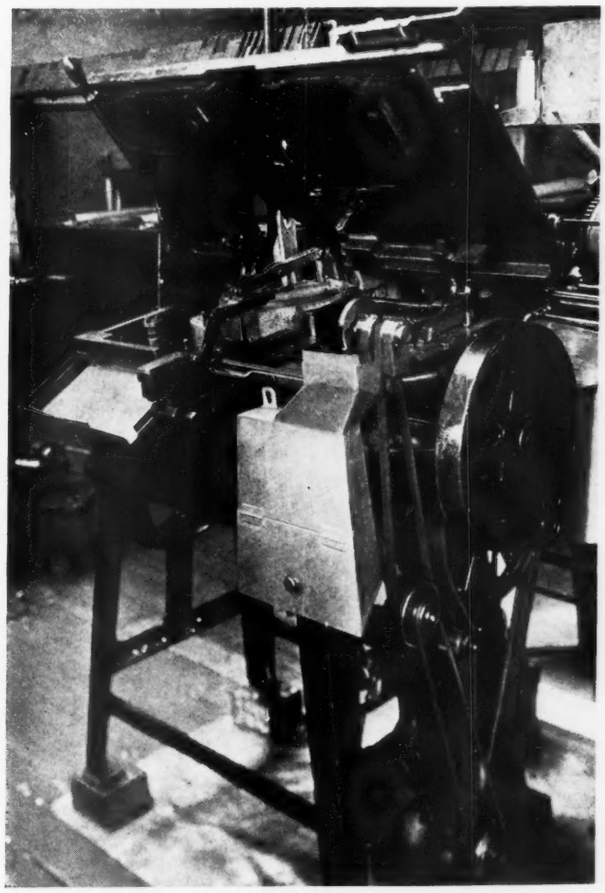


Fig. 1.—View of trimmer applied to Ludlow machine in composing room of the Montreal (Can.) Star. *The trimmer is driven by a V-groove pulley attached to the end of the Ludlow driving pulley shaft.*

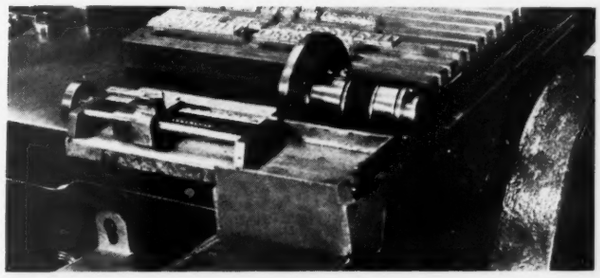


Fig. 2.—View of trimmer which has been applied to a Ludlow in the composing room of the Montreal (Can.) Star. *The trimmer table slides on two runners. The gauge is graduated and can be set to points if required.*

Trimmer

Applied to Ludlow for Cutting Waste from Slugs

By J. M. Letham*

THE two pictures show a slug trimmer applied to a Ludlow machine, which was designed and built in the Montreal *Star* Composing Room. The trimmer does not take up any extra floor space and the same motor is used for both machine and trimmer.

In Fig. 1 will be noticed the V-grooved pulley screwed to the side of the Ludlow motor pulley. This pulley takes a 5/16-in. round belt which runs to the counter-shaft pulley. The counter-shaft pulley is connected to the pulley on the saw spindle by a 3/16 in. by ¾ in. flat endless belt which gives the trimmer a speed of 5000 revolutions per minute. The counter-shaft support is made from a 1½ in. by ⅜ in. flat piece of steel bent to suit, to which the counter-shaft pulley shaft is bolted. In this support there is a slot cut out ¾ in. by 4 in. long to permit lowering the pulley to take up the slack from the flat ¾ in. endless saw belt when required.

The main saw bracket is bolted to the top of the machine under the cover. A small part of the Ludlow cover is cut out to clear the shielded trimmer and the upper part of the saw bracket. This enables the operator to open the cover without inconvenience.

The trimmer table is made from flat cold-rolled steel bent into many different shapes to save parts.

The gauge is graduated and can saw to the point if required. The slide gauge is easily moved by the thumb or finger to required cutting sizes.

The trimmer table slides on two runners. By the aid of a spring, the table always returns to the same position.

The trimmer is a Simonds stock thin saw. The trimmer and counter-shaft run on ball bearings, which require lubrication only every six months. The trimmer is sharpened once a month and is fully shielded.

The waste sawed-off ends of slugs fall into a waste chute and container (in one), which will be noticed in Fig. 1.

The container is easily emptied by manipulating a knob to release the waste metal.

This new trimmer is a great improvement over the one which we used with our Ludlow machines since they were installed some fourteen years ago.

*Superintendent Composing Room, Montreal (Can.) *Star*.

WHY SPIRAL BINDING SHOULD BE USED

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SPIRAL SIMPLIFIES DIFFICULT BINDING JOBS

by allowing a wide variety of page sizes, stocks, weights, and colors. You can bind a postcard next to a broadside. Put cellophane in front of cardboard. Use gold paper for one page; wood veneer for another. The possibilities are limited only by your imagination. Why not send us a dummy of the job you have in mind. Anything up to two inches in thickness and thirty inches in length. We will Spiral Bind it for you gratis and you can see for yourself.

D I N G C O M P A N Y

REPRESENTATIVES: Wm. F. Zahrndt & Sons, 77 St. Paul St., Rochester; S. A. Stewart Co., 421-427 7th Ave., Pittsburgh; Brown & McEwan, Inc., 71 Clinton St., Newark, N. J.; George A. Simonds & Co., 930 H St., N.W., Washington, D. C.; The Albrect Company, 211 So. Sharp St., Baltimore.

E. B. Dunkak, Vice President and Sales Manager, The C. M. Kemp Mfg. Co.

Hidden Flame

Some Technical Aspects With Respect to Stereo Metal Melting

By E. B. DUNKAK*

AS I SIT down to tell you in print about our metal-melting equipment, I see my readers in their easy chairs before the brightly burning home fires, with *Printing* EQUIPMENT *Engineer* in their laps soliloquizing something like this: "This duck thinks his gadgets are pretty good. It's a coincidence he should think so much of the product that buys his beans and shoes and movie tickets."

So then, considering the experience of mechanical superintendents in 120 publishing plants in various parts of the country, I feel myself drafted into offering a brief outline of an efficient method of getting type metal into a pourable state and keeping it that way.

Kemp immersion melting is not so much a story of machinery as it is a story of principle. While Kemp stereo melting is only about two years old, the principle which makes it possible was discovered and put to work by the Kemp organization before the turn of the twentieth century in a machine which converted a useless byproduct of kerosene (called gasoline) into a completely combustible gas for lighting the mansions of the more opulent country squires. The principle we have mentioned is 100 percent premixing of gas with the air necessary for complete combustion. Industrial application followed soon after.

In the course of working out industrial heating problems, Kemp engineers discovered that the Kemp flame, since it required no inspiration of air at the burners, would do equally well in a completely enclosed chamber, that, in fact it would burn nicely actually immersed in a liquid. So Kemp came one step nearer to the newspaper plant in building immersion burners for pickling vats and the lead pots used by the rubber industry for molding hose.

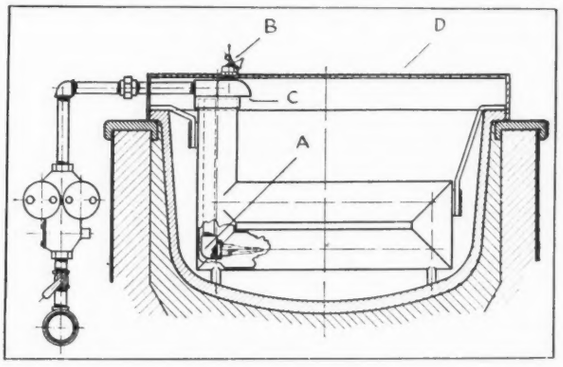
The very first application of Kemp immersion melting in a newspaper publishing plant was made at the New York *World*, just before the demise of that great paper. But it was a year or more later, before Kemp seriously tackled the job of presenting immersion melting to the publishing world. Our first testimonial on stereotype metal melting came from Glen Williamson, then mechanical superintendent, whose hand was on the throttle when the *World* made her last run. Here's what he said:

> The savings in gas that we have shown in more than a year of operation are considerable; sufficient to pay for the equipment and installation in about thirty months. But, to us, these savings do not compare in importance with the increased speed with which we can get out the papers.

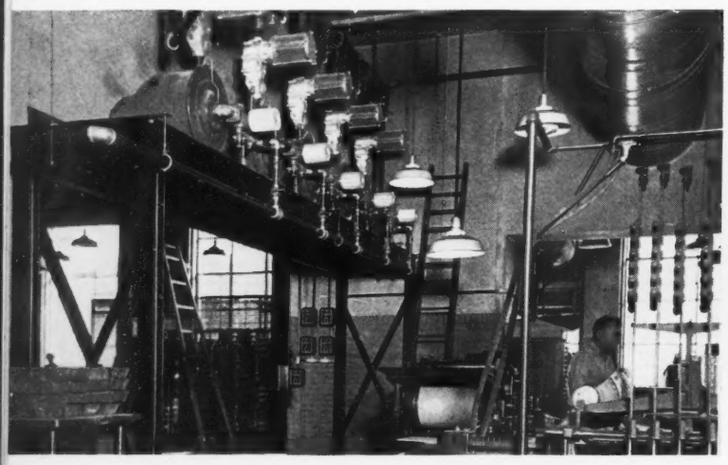
But maybe you'd like me to get on with this and give you a few details.

Kemp Immersion Melting cuts gas bills on three basic counts: (1) Kemp Immersion Burners utilize all of the

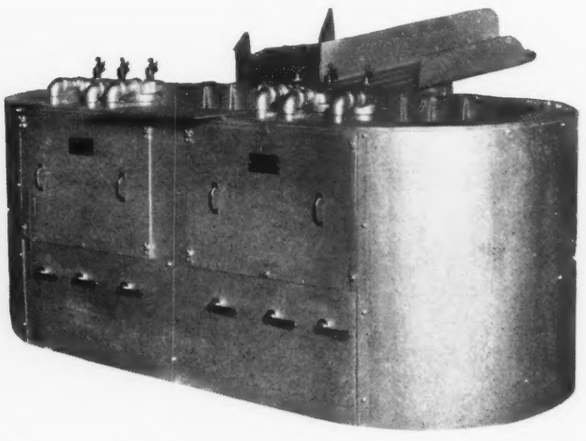
*Vice President, Kemp of Baltimore.



Immersion melting X-ray, showing location of heating element, A, flame circulating chamber, complete pot insulation and hood, D, to hold hot inert flue gasses over surface of metal.



A battery of five Industrial Carburetors supply completely premixed gas and air to the four Kemp stereotype pots of the Pittsburgh Press.



New streamlined 10-Ton Kemp stereotype job in plant of the Dayton Daily News

Remanufactured Equipment

Remanufactured

AUTOMATIC FEEDERS

AUTOMATIC JOB PRESSES

BINDERY EQUIPMENT

COMPOSING ROOM EQUIPMENT

COMPOSITION MACHINES

CYLINDER PRESSES

ENGRAVING EQUIPMENT

FOLDERS

HI-SPEED CYLINDER PRESSES

JOB PRESSES

LITHOGRAPH EQUIPMENT

MISCELLANEOUS SUPPLIES

PAPER BOX MFG. MACHINERY

PERFORATORS

PUNCHES

POWER CUTTERS

SAWS

STITCHERS

The success of the M. L. Abrams Company in supplying remanufactured and new equipment and supplies for the printing and allied industries has been founded on the highest principles.

We have built up an organization consisting of thoroughly trained service men in constant touch with the newest technical developments in the industry. Our erectors are the pick of the printing mechanics. All installations are planned, thereby eliminating delays, disturbances, and worries usually present when equipment is being installed. This organization was the first to systematize methods of service, repairs, dismantling, moving, and erecting.

Our machine shop, tool room and parts departments have the modern essentials necessary to enable us to give the printer the better values at consistently lower prices.

The sales group is composed of men having printing and erecting experience with an intimate knowledge of printers' needs—these groups working together are able to offer practical suggestions and help to those in the industry.

Our services further include the appraisal and sale of printing plants; and we are also counsellors in plant moving and plant layout.

A cordial invitation is extended to you to visit with us and see our unusual and progressive plant.

Our bulletin of remanufactured equipments (including our special low-priced leader of the month) is yours. Just ask for it. It will be mailed without obligation.

New

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HILL PAPER DRILLS

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THOMPSON CABINETS

ROUSE PRODUCTS

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MICK PAPER DRILLS

MAKATAG MFG. CO.

WETTER NUMBERING MACHINES

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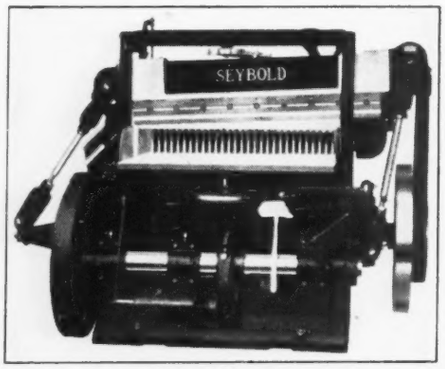
Representatives in Toledo, Detroit, Pittsburgh

REBUILT PRINTING MACHINERY



GOOD REBUILT MACHINES

Monotypes	Rotoprints	Ruling Machines
Ludlows	Stitchers	Sewing Machines
Cutters	Presses	Saws
Folders	Punches	Cabinets
Linotypes	Perforators	Embossers

Save 50% to 75%

HIGHEST QUALITY AT LOWEST PRICES

All kinds of printing and binding Machinery—scientifically rebuilt—at unusually low cost. Every machine is thoroughly inspected and guaranteed. Our new illustrated list—including products of America's foremost manufacturers—will be sent upon request. New and Rebuilt Machines.

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Main Office and Factory—1975 East 65th Street, Cleveland O., U.S.A.
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America's Complete Printers' and Book Binders' Supply House—Representing a Majority of America's Leading Manufacturers in the Sale of Their New and Rebuilt Machines

Write for One of Our Free Type Line Gauges

gas, in other words, insure complete combustion. (2) Kemp Immersion Burners make possible the putting of the heat source inside of the metal. (3) Kemp Immersion Burners being located inside of the metal, the pot itself is insulated to prevent heat radiation. With under-firing, the pot is hotter than the metal and the pot-and-brick-surfaces are exposed to heat-hungry atmosphere.

Then, too, with Kemp Immersion Melting you can forget the old bugaboo of cracking a pot because the metal melts evenly, distributing the pressure evenly over the sides and bottom.

Metal melts quickly upon heat application and cools slowly when the heat source is turned off. One paper found metal in an underfired pot froze in 6½ hours, while with Kemp equipment the metal required 12 hours to solidify.

Kemp installation removes or minimizes the common causes of dross formation, such as overheating, local heating and exposure of the metal surface to oxidizing atmospheres.

Overheating and local heating are eliminated by proper arrangement of a sufficient number of immersion burner units so that the difference in temperatures between burner and metal are comparatively slight.

Surface oxidation is minimized by the fact that flue gases from the burners may be held constantly at a point where no carbon monoxide is present and free oxygen reduced to 0.2 per cent, or a hundredth part of the oxygen present in air.

Because Kemp burners operate at constant pressure and independently of stack pressure, they are vented just above the pot so these chemically inert flue gases drop down and blanket the surface of the molten metal from the corroding influence of the surrounding air. And this flue gas, held by a protecting hood against the surface of the metal forms a barrier that heat cannot pass. In fact, heat is radiated into the metal, not out of it.

And here's another point you'll appreciate. Kemp Immersion Melting makes the stereotyping room a good place in which to work, since there is no carbon monoxide released to poison the air and slow down the wits and muscles of workers, and complete insulation of the pot provides cooler working conditions.

Cecil Rubber Roller Finishing Equipment

Cecil Rubber Roller Finishing Equipment is featured by a metal cutter, refuse collection facilities, roller-mounting method and the complete refinishing of the roller without removing it from the finishing machine.

The Cecil metal cutter will remove as little as 0.005 in. Usually, however, about 0.020 in. is removed from the roller diameter for refinishing. It requires 35 minutes to run a cut across a roller 72 in. face up to 7½ in. diam. Infrequent sharpening of the cutter may be performed without removing it from the machine. The cutter teeth, when too shallow for further use, may be recut in a short time without special equipment.

The Cecil dressing unit collects the rubber particles as cut from the roller and a cool draft of air flows across the roller while it is being dressed.

The soapstone applicator-collector applies soapstone and collects the surplus while the roller is rotating at full speed for the polishing operation. A reservoir in the applicator top supplies soapstone to the roller and a collector deposits the surplus in a bag, from which it may be taken for future use.

Cecil Rubber Roller Refinishing Equipment is furnished as a special duty machine or may be obtained for combination roller finishing and lathe duties in models to suit the conditions in any size printing plant.

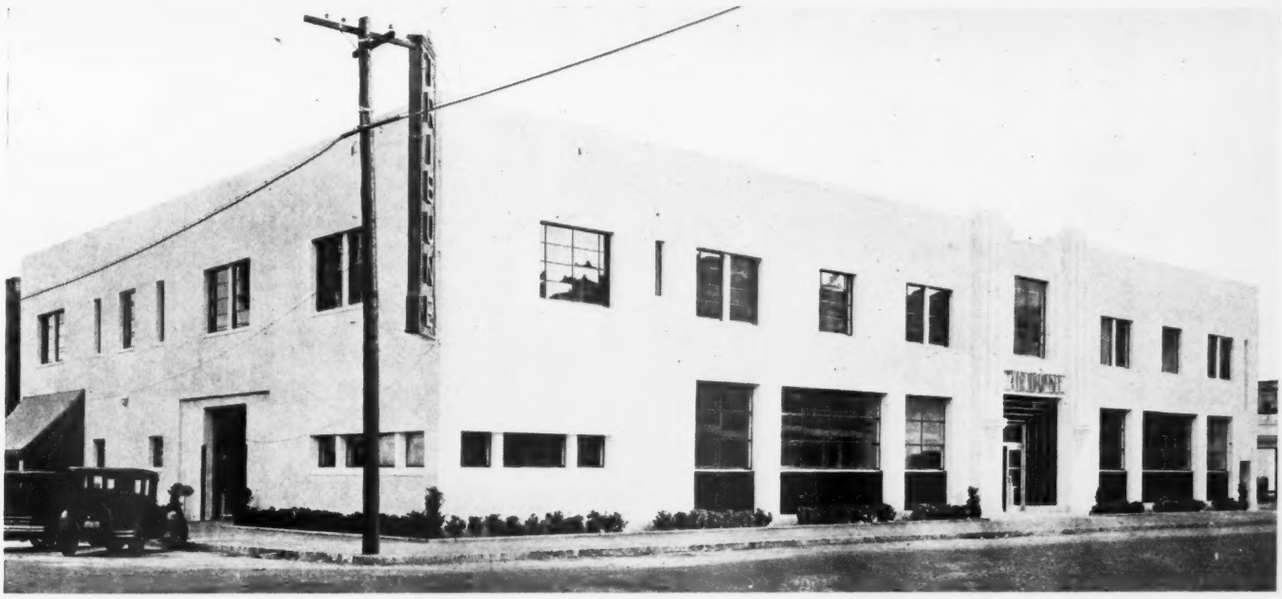
Egmont Bold

Egmont Bold has been cut and is ready for distribution, it has been announced by the Continental Typefounders.

EGMONT BOLD IS

cast in ten useful sizes

Egmont Bold is available in a range of ten sizes from 8-pt. through to 60-pt. The new series is intended for use principally in advertising composition.



Architecturally, the new air-conditioned home of the Tampa (Fla.) Tribune *is marked by artistic simplicity. Externally, the only decorative effect consists of two vertical pilasters, one on each side of the main public entrance of the building. The main entrance is constructed of black glass and white metal.*

Comfort

Induces Efficiency At All Seasons In Newspaper Plant

By W. H. Moler*

THE Tampa (Fla.) Morning *Tribune* which was recently moved into a new and specially constructed building, is completely air conditioned. The air conditioning system was installed after planning and consultation by York engineers with Architect Franklin O. Adams and the architect's engineer, Albert H. Jones. Within the building, comfort and efficiency have been given first place in the planning of every detail. Walls, ceilings and floors throughout the entire plant have been insulated against noise, making each department completely sound proof.

Mechanical Departments On First Floor

The new plant has 80,000 square feet of floor space. All mechanical departments, except the photoengraving department, are located on the first floor of the building, where the presses and other heavy machinery are supported directly on the ground, so that vibration is not communicated to other parts of the building.

Lighting in the mechanical departments has been arranged to avoid eye-strain, and floors are of woodblock instead of concrete, for ease in walking, and to withstand the wear and tear of trucks.

Moving Job Completed In Short Order

In moving the mechanical equipment, careful planning as to how the moving was to be done resulted in an extremely efficient shift of plant machinery to its home in the new building without missing an edition. The composing room equipment which includes eighteen Linotypes, was moved in about four hours.

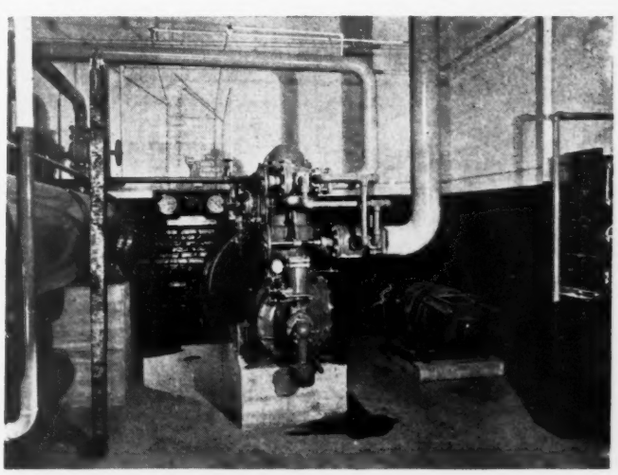
Clifford Alves, superintendent and W. E. Spain, chief machinist of the composing room; Sam Black, stereotype foreman and P. W. Pressby, electrician, with the assistance of thirty-five extra helpers, moved the machines from the fourth floor in the old building by means of low trucks to the new building.

Ed Isler, pressroom superintendent, assisted by P. W. Pressby and assistants, dismantled, moved and installed the *Tribune's* 150,000-lb. Goss octuple printing press in less than six days. While the press was being moved, the *Tribune* was printed on a quadruple press which also has been moved to the new plant.

Six Air Conditioned Zones In New Plant

In order to provide for the circulation of a constant volume of fresh, conditioned and filtered air through offices and mechanical departments, it was found practical to divide the two-story building into six air-condi-

Continued on Page 146



Air conditioning equipment is located in the basement of the new Tampa (Fla.) Tribune *building. In the foreground is a York 11 in. by 9 in. Freon compressor, and at the left is a York shell and tube cooler from which cold water is circulated to air conditioning units throughout the building.*

*All photos by courtesy of York Ice Machinery Corporation, York, Pa.

Copyright 1935.

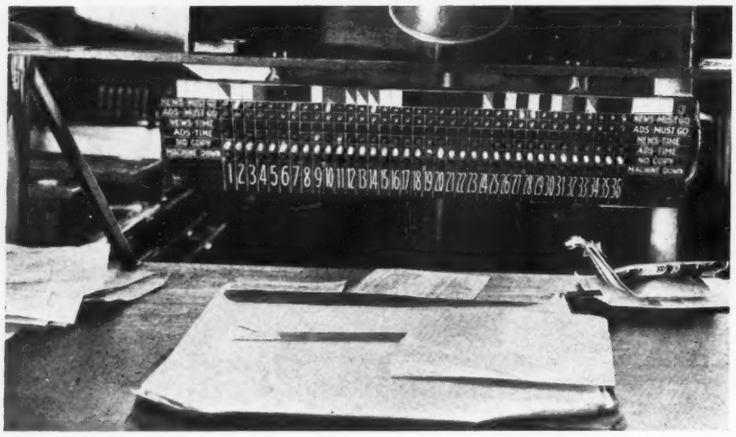


Fig. 1.—One of two copy control indicators in plant of The Montreal Daily Star *composing room. The indicator shown above is mounted upon the ad foreman's desk. The other indicator is positioned at the news copy desk. A third indicator showing red lights only is mounted in the machinists' department. In the* Star *plant there are 36 composing machines. Above each machine number on the indicator board are mounted six 6-volt radio dial lamps. Each lamp in a vertical row is of a different color to indicate the status of each machine. For instance, in the case of No. 15 machine, if a green lamp is lighted, it indicates that the operator is working on "Must Ad" copy. If a red lamp is lighted just above No. 2 machine it indicates the machinist's services are required. As soon as the machine is ready for operation again, the operator sets the indicator shown in Fig. 2 according to the kind of copy upon which he is working. A separate panel, as has been mentioned above, containing 36 red lamps, is mounted in the machinists' department.*

Copy

Control in the Composing Room

By J. M. Letham*

OWING to the intermingling of news copy, heads and advertising on our composing machines and the inconvenience sometimes experienced by the copy cutters on news and ads in placing their "Must Go" copy, more especially between editions when there would be some machines setting time news and time ads, we devised an electrical indicator whereby we could see at a glance what every machine was producing if covered by an operator, thereby enabling us to place our "Must Go" copy promptly.

This electrical indicator is in use on the ad copy cutter's desk, and another just like it is suspended above the desk of the news copy cutter. Each indicator is electrically connected with thirty-six composing machines, and each machine is equipped with a control switch that enables its operator to keep the news and ad copy cutters informed, by means of lights on their indicators, as to just what the machine is doing—setting "must news," "must ads," "time news," "time ads," or whether it has "no copy" or is "down." On top of the lights is a card in colors denoting what fonts of type the different machines carry.

*Superintendent Composing Room, The *Star*, Montreal, Can.

Blatchford METAL

E. W. BLATCHFORD COMPANY
REPUTATION
EST'B 1854 INCO. 1890
A TOWER of STRENGTH

LINO
MONO
INTERTYPE
LUDLOW
AUTOPLATE
STEREO

E. W. BLATCHFORD COMPANY
900 West 18th Street
CHICAGO
63 Park Row
NEW YORK

In addition to the two indicators referred to, another indicator in the machinists' department, lets the machinists know at a glance when any trouble is being experienced on a machine.

An outstanding feature of the system is the guarantee that all machines are furnished with copy and are producing at all times, if covered by an operator.

The indicators used by the copy cutters are each equipped with 216 lamps, but the indicator used by the machinists has only thirty-six, one for each machine. These lamps are colored (which was easily brought about by dipping them in commercial grade lamp lacquer), and the following color scheme is observed: For "must news," canary color; for "must ads," green; for "time news," orange; for "time ads," blue; for "no copy," white frosted, and for "machine down," red. The machinists' indicator contains only the "machine-down" feature.

An installation of this size using ordinary lighting bulbs on standard voltages would be almost prohibitive, both from point of first cost and operating. Hence the most satisfactory solution lay in the use of low voltage lamps.

The system contains 468 six-volt radio dial lamps. These lamps are standard type, are easily procured, and give an average of 1,000 hours continuous service.

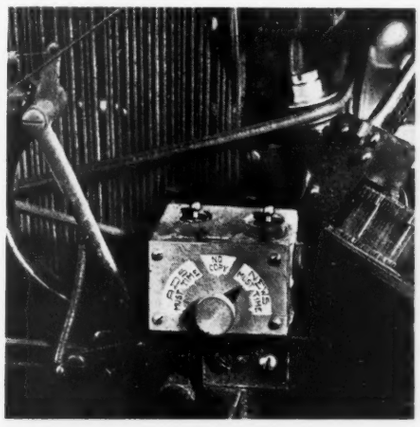


Fig. 2.—View of machine switch which is manipulated by the operator according to the kind of copy upon which he is working, or in case the machine is down on account of mechanical difficulties, the operator throws one of the two small tumbler switches on top of the terminal box to notify the machinist his services are required. When the operator starts work on a different copy classification he turns the indicator to the corresponding classification on the terminal box dial and a light corresponding to that classification is automatically illuminated on the boards at both the copy cutter's and ad alley desks.

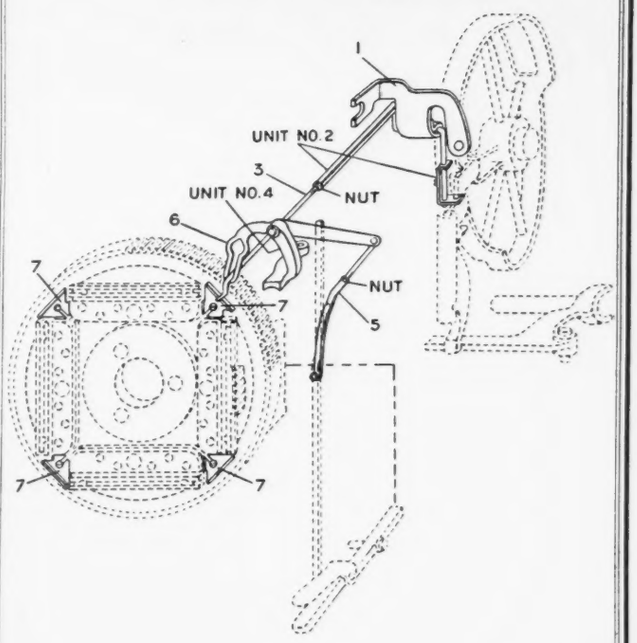
The power supply is obtained through a 500-watt stepdown transformer—110 volts to four and six volts. The four-volt tap was used, as the lower rating gives satisfactory results and tends to increase the life of the lamps.

The machine switch units consist of small rotary arm contact switches supplemented by two canopy tumbler switches. The whole switch arrangement is indicating and easily operated. A switch unit is fixed on each machine just above the keyboard by means of bracket.

All the wire used is No. 18 annunciator, except the power feed from the transformer to the base plates, in which case No. 14 standard wire was used. The wiring is done in conduit, the conduit varying in size to suit the grouping of the machines. The conduits on the machines are laid across the top of the Margach feeder frames and the wiring run down the machine frames in

AVOID DAMAGE TO MOLD LINERS

With Our Protector on Your Linotypes



Automatic Mold Liner Protector for Linotype Machines

How many liners are damaged in your plant in a year's time? How many back squirts do you experience due to faulty liners? How often have you found it necessary to adjust side knives due to wrong ejector blade setting? How many damaged ejector blade sections do you find it necessary to replace? How much time is lost during peak production hours due to the above faults?

Our Automatic Mold Liner Protector eliminates the possibility of any of these faults, due to the fact that it protects the machine when the operator is most likely to forget. We will prove all of the above claims at our expense.

Fill out return Post Card, which will be found in back of this issue, and let us send you complete information and prices

COMPOSING ROOM ENGINEERS, INC.
1817 Guarantee Title Bldg. Cleveland, Ohio

B X. conduit. This makes a neat and efficient installation.

A metal cover is provided on the back of each panel, with a fine mesh wire screen guard over the front of each panel to prevent the removal of lamps except by the electrician.

The objectives set out in designing the apparatus were utility, simplicity, ease of operation, low initial and operating costs.

All the apparatus, with the exception of standard accessories, was made in our own plant and installed by our own electrician. The total cost of the apparatus made and installed, including the lamps, was $750.

The power required to maintain the apparatus in full operation is less than five kilowatts, or, in actual cost, six cents per ten-hour day.

Returns From Europe

Neal Dow Becker, president Intertype Corporation, returned recently from his annual business trip abroad, after spending several months with Intertype representatives in various European centers, including his company's affiliated organizations in London and Berlin.

Mr. Becker was recently elected a trustee of Cornell University, of which he is an alumnus.

B. H. Wallace Passes

Benjamin Harrison Wallace, vice president and general manager of Damon & Peets, typefounders and printing machinery dealers, New York, N. Y., passed away October 16. Burial took place October 18.

Highlight Halftones

By J. S. MERTLE*

This is a problem of acute interest to both photoengravers and photolithographers; in the photoengraving industry, it is receiving the greatest attention in newspaper plants, due primarily to the demands of department store advertisers.

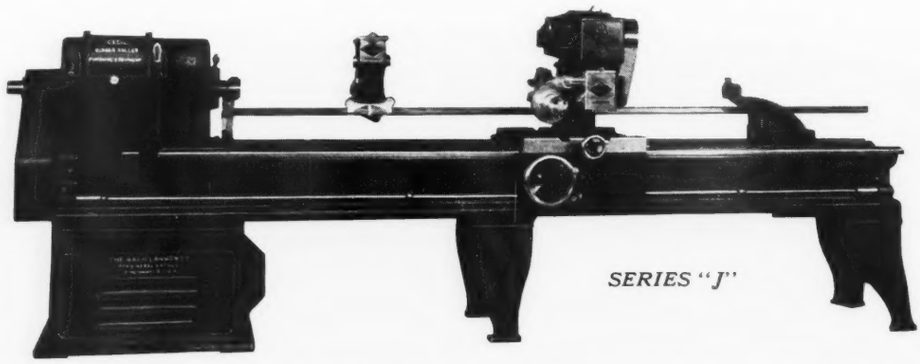
A very popular method of highlighting such illustrations as lend themselves to it consists of providing a transparent overlay over the drawing; on this overlay, all parts required to be retained in halftone are blocked out with india ink or other light-absorbing mediums.

The halftone negative is first made from the copy; then, the celluloid flap bearing the india-ink portions is registered over the copy and another exposure made or superimposed on the halftone. This may be performed with the halftone screen thrown forward as far as possible so as to provide a line image of the parts not protected with india-ink. In the case of stripfilm cameras, removal of the screen before the plate is easily performed without disturbing the position of the latent halftone image already registered on the film.

When using the old-style process camera, a suggestion recently voiced by Theodore Warmbold might be employed: to construct a screen-swinging device inside the camera, so that after exposure through the screen, the halftone ruling can be swung away from the sensitive plate inside the camera, and a line exposure then made of the celluloid-covered copy.

*Director Graphic Arts Division, The G. Cramer Dry Plate Company. Abstracted from paper presented at the Cincinnati meeting of the Graphic Arts Research Bureau, June 19-21, 1935.

CECIL RUBBER ROLLER FINISHING MACHINES



SERIES "J"

THE LEADING PRINTING PLANTS OF THE UNITED STATES RELY ON CECIL RUBBER ROLLER FINISHING MACHINES

Cecil Rubber Roller Finishing Machines have proved themselves for years in leading printing plants in the United States. They are not new—they are not untried. Why experiment with untried equipment when you can have proved efficiency in a Cecil?

When you install a Rubber Roller Finishing Machine, you expect it to give years of accurate, economical service. This being true, we ask you to visit any of the leading plants listed in this advertisement and see them at work. Owners will tell you about its accuracy, ease of operation, speed, cleanliness, and economy of operation.

With the above information, compare the cost of the finished job you are getting on your rollers with what Cecil Equipment is doing in these plants. Remember that every Cecil machine is guaranteed for material, workmanship and results.

Write today for complete information and prices on the SERIES "J" special machine or the SERIES "AA" combined lathe and roller finishing equipment.

DUST-LESS EQUIPMENT COMPANY, 1406 Monroe St., N. E., Washington, D. C.

Represented by the Goss Printing Press Co.

Ask These Users

LIST OF USERS

New York News
Minneapolis Tribune
Kansas City Star
Kansas City Journal-Post
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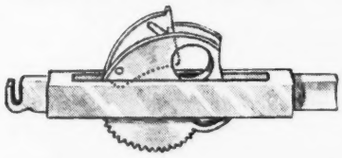
Washington Evening Star
Washington Post
Roanoke Times
Melbourne, Australia, Herald
Sydney, Australia, Herald
Altoona Mirror
Cincinnati Times Star
Godfrey Roller Company
San Francisco News
McCall Company
Toronto Star, Canada
Bloemfontein, South Africa

LATEST "STAR" IMPROVED PARTS
FOR LINOTYPES AND INTERTYPES

KEYBOARD EMERGENCY CAM



Eliminates machine tie-up when ***tooth*** of a cam stop strip breaks.

Instead of a new cam stop strip, the emergency cam is inserted at the proper point, and the spring action of the tongue takes the place of the broken tooth.

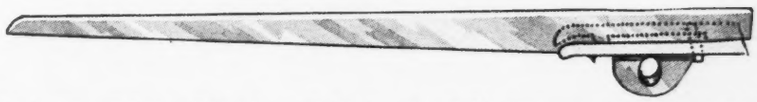
When the emergency is over, the new cam stop strip can then be inserted.

H570A or H913A - - - - - -	$1.75
H1000A (spaceband) - - - -	2.00
T418A - - - - - - - - - -	2.00
T1042A (spaceband) - - - - -	2.25

KEYBOARD CAMS

"Star" cams are superior to any you have ever used. ***Every*** tooth is ***individually*** cut by a special process we perfected. The result is sharper—deeper cut teeth, in perfect alignment. In brass or steel yokes—Linotype and Intertype.

IMPROVED SPACEBAND BUFFER FINGER
(For Linotypes and Intertypes)

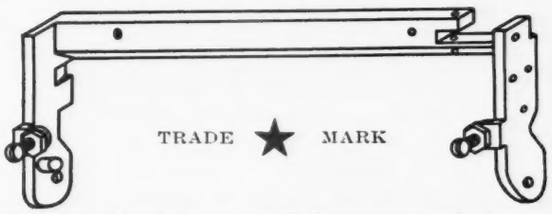


The finger will last indefinitely. Only the detachable bronze spring will need infrequent replacement.

Instead of the spaceband striking the top of the finger, the bottom of the band hits the spring ledge on both sides of the finger when settling in the assembling elevator. The fall of the spaceband is not only cushioned, but the spring acts as a "drag" on the bottom of the former, steadying it in its passage in the assembly.

More economical and efficient. D-1211A $1.00. D-1211B (spring) 25c.

IMPROVED ASSEMBLING ELEVATOR GATE



Wear can be compensated for by adjustments on both sides of the assembling elevator gate. Of one piece construction (not welded on ends).

D2821A (assemb'd) $8.75
D2733A . . . 6.75

Ace cord rubber belts are rapidly becoming standard equipment in many Linotype and Intertype plants because they are not only more efficient—but last far longer.

Circular on request

NEW YORK
203 Lafayette Street

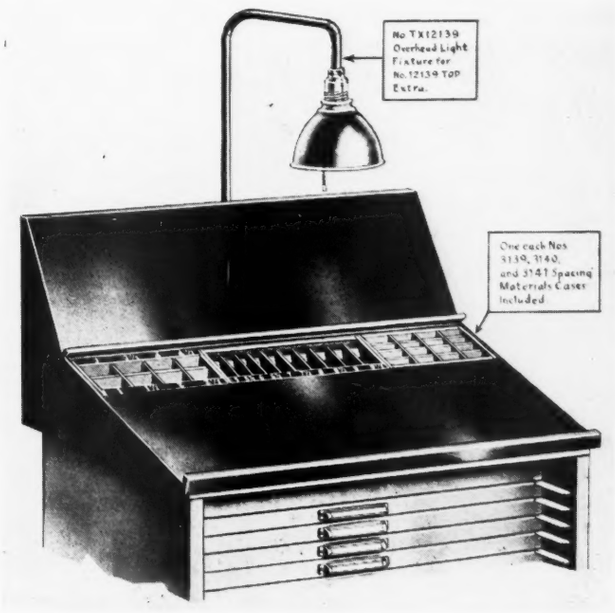
LINOTYPE PARTS CORPORATION

Agencies:
CHICAGO
318 West Randolph Street
LOS ANGELES
1520 Georgia Street

KANSAS CITY, MO.
314 West 10th Street

Work Top for Cabinets

A new sloping top work bank designed to fit the 12210X Hamilton cabinet and other single-tier type cabinets has been announced by American Type Founders Sales Corporation. The new unit, known as Hamilton work top No. 12139, has base dimensions of 26⅛ in. by 36¼ in., and working height of 44 in. when placed on top of the 12210X cabinet.


No TX12139 Overhead Light Fixture for No. 12139 Top Extra.
One each Nos. 3139, 3140, and 3141 Spacing Materials Cases Included

A sunken section contains auxiliary material cases for copper and brass thin spaces, and for leads and slugs cut 1 to 9½ picas by half-pica. These auxiliary material cases are double depth and the tops are flush with the working surface.

There is an overhead sloping bank upon which may be placed an adjustable lead and slug case. A full width pocket at the rear of the work top will accommodate several 8¾ x 13 galleys. The unit is of substantial metal construction, finished in black enamel. Case partitions and corners are smoothly and accurately shaped.

A new adjustable lead and slug case convenient for use with the work top has also been announced. This case is 14 x 36¼ in. in size, double depth, with partitions adjustable by picas.

An overhead lighting fixture with mount and reflector, designed for use with the new work top is available.

New First-Aid Kit

A new first-aid kit consists of two baked enamel steel cases. An outer case which can be permanently attached to a wall contains an inner case. When needed, the inner case can be unlocked by a twist of the handle and carried to the scene of the accident.

The Brac-Kit, as it is called, contains several first-aid units. The exact assortment depends upon the industry in which the kit is to be used, but a widely accepted assortment is comprised of adhesive plaster, gauze compresses, individual swabs of a new iodine antiseptic, individual tubes of a tannic acid treatment for burns (in a water-soluble jelly), ammonia inhalants (for fainting), eye dressings, and a tourniquet.

NEW ENGLAND NEWSPAPER COMPOSING ROOM EXECUTIVES ASSOCIATION MEETS AT HOLYOKE, MASS.

Front row, left to right: Walter Crighton, New London; C. P. Markham, New Hampshire; H. G. Jones, Portland, Me.; Joseph Mahoney, Holyoke; W. W. Wyman, Boston.

Back row, left to right: Frank Coublin, Holyoke; A. C. Lahl, Meriden; O. R. Brandenberger, New Britain; K. C. Engel, Pawtucket; B. F. Garrity, Hartford; John Laing, Manchester; R. G. Cox, Bangor, Me.; D. J. O'Brien, Hartford; A. J. Tyler, Hartford; B. C. Hastings, Pittsfield; H. P. Donahue, Springfield; Albert Schirm, Springfield.

New England Executives Meet

By Joseph Mahoney*

THE second semi-annual meeting of the New England Daily Newspaper Composing Room Executives' Association was held at the Nonotuck hotel, Holyoke, Mass., on Sunday, October 13. The meeting drew members from various points of New England including Portland, Me., and New Haven, Conn. It also drew a gathering of sales representatives from various companies who furnish composing room machinery and supplies. Several representatives were scheduled for talks at the morning session. Dinner was served in the Florentine Room, followed by brief talks by Mrs. William G. Dwight and Arthur Ryan of the *Transcript-Telegram* and a round table discussion presided over by President H. G. Jones of the Portland (Me.) *Press-Herald*.

*Mechanical Superintendent, Holyoke (Mass.) *Transcript and Telegram.*

EDES PHOTO-ENGRAVING

EDES SUPERFINE QUALITY ZINC

ZINC

THE STANDARD FOR MORE THAN 80 YEARS

UNIFORM TEXTURE . . .
STANDS UP UNDER
MATRIX PRESSURE

THE EDES MANUFACTURING CO., PLYMOUTH, MASS.

Sales Representatives

John H. Heimbuecher Metals Co.,
514 No. Third St., St. Louis, Mo.
Gazzolo Drug and Chemical Co.,
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Printcraft Bldg., Washington, D. C.
Selby Mohr,
883 Mission St., San Francisco, Cal.
C. S. Illingworth, 49 Springville Avenue, Buffalo, New York
Thompson-Hayward Chemical Co.,
2228 Blake St., Denver, Colo.
Thompson-Hayward Chemical Co.,
909-2nd St. So., Minneapolis, Minn.
Metzger Photo Supply Co.,
1091 So. Main St., Akron, Ohio
G. C. Dom Supply Co.,
125 East Pearl St., Cincinnati, Ohio

A letter bearing on composing room problems was read from Frank A. Phillips, secretary-treasurer of the New England Daily Newspaper Association, by Secretary-Treasurer Joseph J. Mahoney of the Composing Room Association. B. F. Garrity, of the Hartford *Times*, told of an interesting campaign which has been carried on for the past two years to reduce accidents in the *Times* plant. The discussion that followed on composing room practices was interesting, almost thrilling at times. If some of the things said there are entirely true, there ought to be a general massacre of newspaper-managers and other executives without delay. It was voted to hold the next meeting in May at Brockton.

Members present included: H. G. Jones, Portland (Me.) *Press-Herald-Express;* W. W. Wyman and Herbert F. Haake, (Boston) *Christian Science Monitor;* Walter Crighton, New London (Conn.) *Day;* Adolph C. Lahl, Meriden (Conn.) *Record;* B. C. Hastings, Pittsfield *Eagle;* Walter F. Walsh, George H. Sanders and George H. Sanders, Jr., New Haven (Conn.) *Register;* Oscar H. Dibben and R. G. Johnson, Brockton *Enterprise;* B. F. Garrity, Daniel J. O'Brien and A. J. Tyler, Hartford (Conn.) *Times;* O. R. Brandenberger, New Britain (Conn.) *Journal;* H. P. Donahue and Albert Schirm, Springfield *Journal;* John Laing and C. P. Markham, Manchester (N. H.) *Union-Leader;* K. G. Engel, Pawtucket (R. I.) *Times;* R. G. Cox, Bangor (Me.) *News;* J. Frank Coughlin, and Joseph J. Mahoney, Holyoke *Transcript-Telegram.*

Representatives present were: Arthur H. Cooke, Mergenthaler Linotype Co.; H. M. Erne and J. H. Hagan, Lanston Monotype Machine Co.; Fred H. Dunham, Ludlow Typograph Co.; Bert D. Belyea, Samuel Stevens Co.; E. Bendow, Linotype Parts Corporation; James Cohen, Acme Type Metal Co.

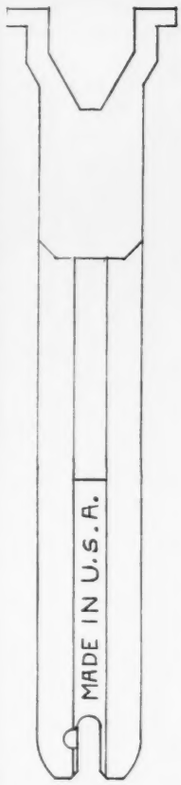
Los Angeles Representative

Paul E. Gallagher, for the last two years president of the San Francisco Club of Printing House Craftsmen, and formerly superintendent of the Progress Printing Corporation, San Francisco, has been made Los Angeles representative of the Mergenthaler Linotype Company.

Mr. Gallagher, who has had practical experience in various branches of printing, was born in San Francisco in 1899, and began his apprenticeship in 1910 in the printing office of his father, G. E. Gallagher, in San Francisco. He has held positions as mechanical executive in various Western printing plants.

Mr. Gallagher will be pleased to have his many friends visit him at his Los Angeles office, 235 East Fourth Street, and will cooperate at all times with members of the printing and publishing fraternity.

Paul E. Gallagher, newly chosen Mergenthaler representative in Los Angeles.



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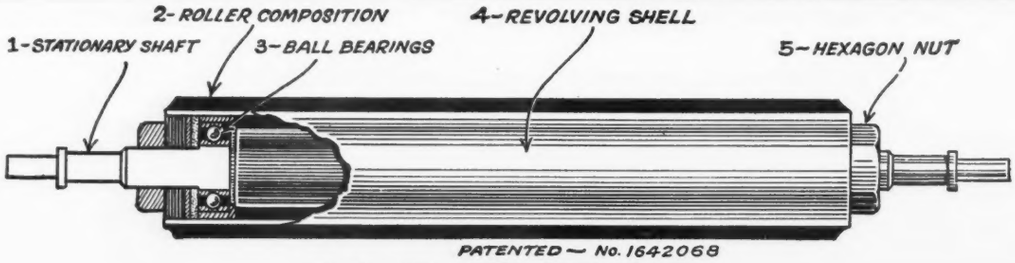

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Aniline Inks

Recent Developments of Interest to Mechanical Executive

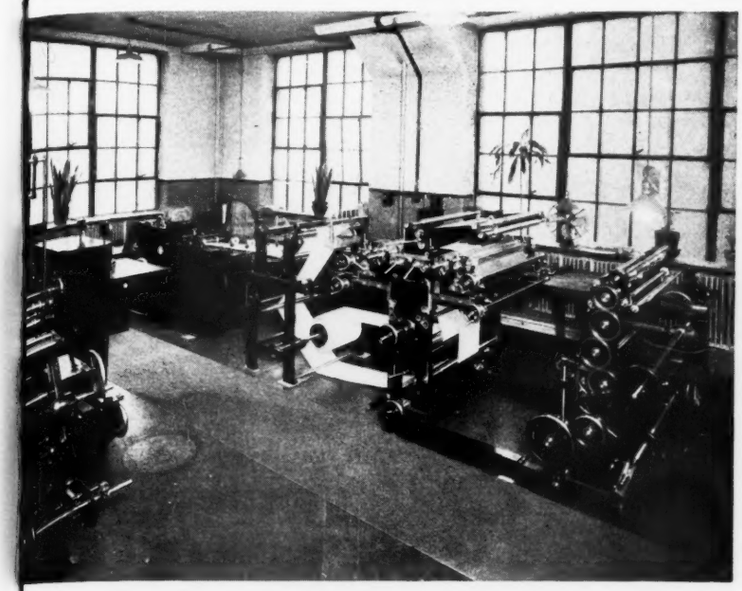
By ALFRED MCNEIL*

CONSIDERABLE interest is being shown by printers and ink makers alike in the newer types of aniline inks which have been recently developed. Although aniline inks, in one form or another, have been used for many years for a number of minor purposes such as the numbering of cartons, etc., it remained for the introduction of moisture-proof cellulosic wrapping materials to bring them into general use, since, at the present time, they are the only inks which will print this material without offset. The pioneer work on these newer aniline inks was done principally in Europe several years ago and they reached the American market mainly through the several dyestuff makers who maintain branches in this country. Since then a great deal of work has been done by ink makers in the United States to improve these inks further and to make them suitable for printing a wider variety of surfaces. Their efforts have met with considerable success, as is attested by the ever-increasing demand for these inks for the printing of a number of surfaces other than moisture-proof cellulose, such as ordinary cellophane, protectoid, glassine paper, Kraft paper, machine finished paper, etc. The bag industry, in particular, has taken very kindly to these new inks because of their extremely rapid drying qualities which permit of printing and making up the bags on one machine at very high speed.

APPRAISAL OF PRESSES

Aniline inks are generally used on high-speed, rotary, roll or web-fed presses which use rubber stereotype plates and are specially designed to handle the volatile and highly fluid spirit inks. These machines are unusually compact and are being widely used for the printing of glassine, cellophane and paper bags, box coverings, soap wrappers and countless other products. They print from one to three colors in rapid succession and with no apparent offsetting or sticking, although smearing is occasionally encountered. The presses are comparatively simple in construction as the rotary principle employed does away with any reciprocating parts or cams and the nature of the inks does not require any elaborate ink distributing system. Wash-ups are easily made and both the inks and plates may be changed quickly and with a minimum of effort. These presses are made in several sizes, the two most popular being

*By courtesy of *American Ink Maker*, New York, N. Y.



A new type aniline printer is shown, right center, hooked up to a bag machine. Slitter and rewinder at extreme right. At left, vulcanizer for making rubber plates.

those that take web widths of 18½ and 25½ inches respectively. The former size will take a printing plate up to 13 inches in depth (circular, of course) while the larger size will take a plate up to 22 inches in depth.

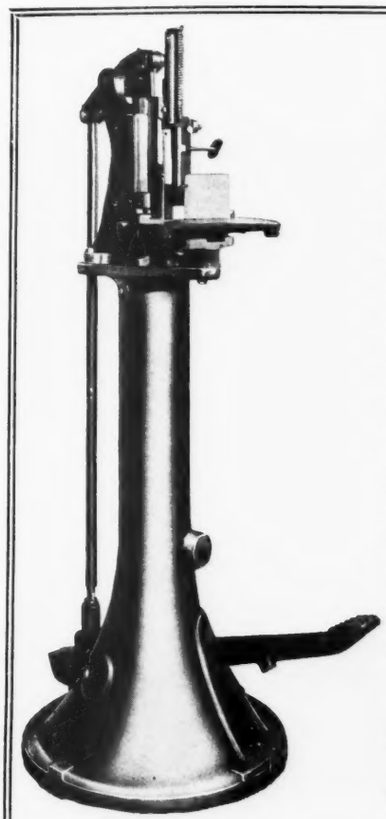
Classes of Inks

Aniline inks are divided into two principal classes: transparent and opaque, or semi-opaque. The former are still widely used for the printing of glassine, celluloid, protectoid and other transparent materials, while the opaque types of aniline inks, or semi-aniline inks, are steadily increasing in favor in most fields as they stand out better than the transparent types, shutting off the transmitted light and giving the impression of much greater strength. Transparent aniline inks consist of rather concentrated solutions of spirit soluble dyes in a mixture of alcohol, glacial acetic acid and ethylene glycol mono-ethyl ether. Shellac, or other spirit-soluble resin may be added to increase the adhesion and toughness of the dried film, although generally at a sacrifice of the printing qualities of the inks since shellac has a tendency to make the inks "gummy" and to cause them to dry and cake up on the rolls and forms of the press, thus producing filled-in, uneven results.

Aniline Ink Technique

The opaque aniline inks are formulated along lines similar to the transparent inks except that a percentage of opaque white or colored pigment such as titanium oxide, chrome yellow, cadmium red, etc., is added. The usual practice is to grind the pigments into a mixture of ethylene glycol mono-ethyl ether and an alcoholic solution of shellac in a closed ball, pebble or tumbling mill until they are reduced to the required degree of fineness and then blending the paste so formed with a concentrated solution of the desired dyestuff in methylated spirit or denatured alcohol. Although beautiful results

Continued on Page 137



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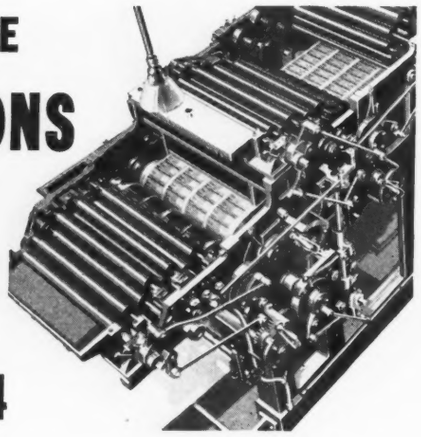

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Bookbinding:

2,014,980. BOOKBINDER'S WRAPPERING OR COVERING MACHINE. Henry William Pearton and Harry Mills, London, England. Application June 12, 1934, Serial No. 730,356. In Great Britain June 15, 1933. 13 Claims. (Cl. 11—4.)

1. A machine for operating upon the fillers of books, periodicals and the like, comprising a rack for supporting a number of fillers with the backs directed downwards, means for clamping and longitudinally traversing a filler, means for transferring a filler from the supporting rack to a position in which it may be clamped by the clamping and traversing means with its back still directed downwards, mechanism for operating the last-mentioned means to clamp the transferred filler, mechanism for displacing the clamping and traversing means in a rectilinear path, an adhesive-applying device disposed in the path of movement of the clamping and traversing means so that it is engaged by the back of the clamped filler during the longitudinal movement thereof, means for supporting a pile of cover sheets, means for feeding the topmost sheet of the pile to a position in which it is disposed beneath the filler when this reaches the end of its travel, means for lowering the clamping and traversing means at the end of its travel to engage the filler with feed members, means for rendering the clamping and traversing means inoperative for clamping the filler, means for simultaneously actuating the feed members to displace the filler downwardly and press the back on to the positioned cover sheet, means for folding the cover sheet upwardly around the filler and means for delivering the filler thus provided with a cover to a discharge chute.

2,014,973. BOOKBINDING. Harvey B. Martling, Nashville, Tenn. Application January 31, 1935, Serial No. 4,364. 4 Claims. (Cl. 281—21.)

3. In a book, the combination of a back proper, a stack of leaves provided with spaced registering openings adjacent to the edge to be bound; a back-binding member comprising a strip of sheet material folded lengthwise to form upper and lower strip parts, the member being formed along its fold with a plurality of slits spaced correspondingly to the openings in the leaves, and the outer face of the lower strip part being secured to the back proper; a plurality of retaining strips formed integrally with the lower strip part and being located respectively opposite the slits and being threaded respectively through groups of registering openings in the leaves, the free end portion of each retaining strip extending through one of the slits in the back-binding member and between the upper and lower strip parts of the latter; and adhesive between the upper and lower strip parts and the portions of the retaining strips lying therebetween.

Feeding, Folding, Delivery:

2,013,623. DEVICE FOR DELIVERING PAPER TO PRINTING PRESSES. David G. Bernard, Chicago, Ill., assignor, by mesne assignments, to Donald M. Carter, Chicago, Ill. Application April 14, 1933, Serial No. 666,079. 9 Claims. (Cl. 242—58.)

2. A device for delivering paper to printing presses, comprising a roll support, a plurality of rolls carried thereby, means for connecting the web of the expiring roll with the web of a new roll, a servering device for severing the web of the expiring roll, a light emitting device which directs light on the web running to the press, controlling means for the severing device, the light emitting device in cooperation with the web, indicating to the operator when the controlling device should be operated.

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2,104,181. SHEET FEED DEVICE. Oscar Kleinschmit and Oskar Muller, Leipzig-Plagwitz, Germany, assignors to Gebruder Brehmer, Leipzig-Plagwitz, Germany, a limited partnership of Germany. Application April 27, 1934, Serial No. 722,790. In Germany May 4, 1933. 25 Claims. (Cl. 112—21.)

1. A book-stitching machine which includes stitching means, a main pivotal sheet carrier arranged to move to and from the stitching means, an auxiliary sheet carrier arranged to move with the main sheet carrier, a sheet-engaging device associated with the carriers, and means for displacing the sheet-engaging device relatively to the carriers so that a sheet laid upon the auxiliary carrier is engaged by the device and transferred to the main carrier during the movement of the carriers.

2,014,933. FOLDING MACHINE. Charles Alonzo Harless and Fred G. Tuttle, Oak Park, Ill., assignors to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application March 17, 1933, Serial No. 661,283. 16 Claims. (Cl. 271—80.)

1. In a delivery mechanism for high speed folding mechanisms, the combination of a pair of folding rollers, a moving delivery belt and a rotary fly for receiving products from the rollers and laying them on the belt, the belt and fly moving in the same direction, and a stop cooperating with fly to remove the products therefrom and insure uniform positioning of the products on the belt.

2,016,298. ROTARY FOLDING MECHANISM. Oliver H. Sather, Chicago, Ill. Application April 30, 1934, Serial No. 723,070. 5 Claims. (Cl. 270—77.)

1. The combination of a floating internal gear, a planet gear meshed with the internal gear, a blade connected to the planet gear, means to impart angular motion of constant velocity to the planet gear, and means arranged to rock the internal gear angularly about its axis to vary the peripheral speed of the planet gear when the edge of the blade is in a predetermined position.

2,016,479. SHEET FEEDER. Frank R. Belluche, Racine, Wis., assignor to Christensen Machine Company, Racine, Wis., a corporation of Wisconsin. Application April 30, 1934, Serial No. 723,092. 37 Claims. (Cl. 271—37.)

1. Sheet feeding means for printing machines and the like, comprising a feeder unit having means to separate the sheets, a slow moving tape conveyor to present sheets individually to the machine, the tape conveyor being supported at an elevation determined by the height of the point of entrance of the sheets into the machine, and the feeder unit being supported close to the floor to facilitate loading thereof, and means to convey sheets singly from the feeder unit to the tape conveyor.

2,016,486. FOLDING MECHANISM. Curtis S. Crafts, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application May 4, 1933, Serial No. 669,307. 16 Claims. (Cl. 270—50.)

1. Folding mechanism including in combination a folding cylinder having rotatable folding blades mounted thereon, folding off rollers to cooperate with the blades, rotary cam means driven with the cylinder for rotating alternate blades as they pass folding-off position, and other rotary means driven with the cam for controlling blades not actuated by the cam.

2,016,539. FOLDING MACHINE. Carl W. Brenn, Montclair, N. J. Application August 1, 1931, Serial No. 554,401. 13 Claims. (Cl. 270—79.)

1. A folding machine for producing a zigzag folded pile from a continuous web having transverse weakening lines at regular intervals, comprising a support; a noncreasing web feeding mechanism located above the support adapted to impart to the web an impetus toward the support carrying the web to form into alternate right-hand and left-hand loops according to the hand of the previous fold, each loop including a transverse weakening line; and means for flattening the loops to form right and left-hand folds on the transverse weakening lines.

Miscellaneous:

2,011,181. METHOD FOR PREVENTING OFFSET IN PRINTING. Romie L. Melton, Raymond C. Benner, and Henry P. Kirchner, Niagara Falls, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y., a corporation of Pennsylvania. Application December 14, 1932, Serial No. 647,243. 1 Claim. (Cl. 101—420.)

The method of printing both sides of a sheet which comprises printing on one side of the sheet, then bringing the sheet into printing relationship with means to print on the opposite side, and pressing the sheet against the printing means by the points of a layer of upstanding elongated particles which are separated from each other by a distance less than their major axes.

2,011,949. PRINTING, STAMPING AND EMBOSSING MACHINE. Edward Roberts, Jr., Hohokus, N. J., assignor to Roberts, Cushman & Company, New York, N. Y., a corporation of New York. Application July 21, 1933, Serial No. 681,578. 19 Claims. (Cl. 41—7.)

1. A printing, stamping and embossing machine comprising a reciprocating die, a reciprocating tape-carrying frame constructed to hold tape in operative position normally spaced from the die, means for operating the die and frame in pre-determined relation so as to reciprocate in the same direction but at different amplitudes to cause the die to make an impression impact on the tape at least once during the reciprocation of the parts, and a tape feed mechanism on the tape-carrying frame for feeding the tape and receiving its feeding impulse from the movement of the tape-carrying frame.

2,012,808. PRINTER'S PLATE REGISTERING HOOK. Charles F. Dausmann, Hempstead, N. Y., assignor of one-half to Fred W. Hoch, Brooklyn, N. Y. Application February 20, 1934, Serial No. 712,154. 8 Claims. (Cl. 101—385.)

1. A printer's plate registering hook, comprising a quad having an opening therein, a bell crank lever pivoted in the opening in the quad, a hook for engagement with the edge portion of a plate and having a shank porjecting into the opening and interlocking with the quad for sliding movement of the hook in a plane parallel to the plane of the upper surface of the quad, the lever having one arm disposed in the path of the shank, and a pressure device in the hook shank engaging the other arm of the lever for advancing the first arm thereof against the hook shank and binding the hook by a straight line movement in the plane and against the edge of the plate.

2,014,352. RULING MACHINE. Albert Broadmeyer, Harrisburg, Pa., assignor to W. O. Hickok Manufacturing Company, Harrisburg, Pa., a corporation of Pennsylvania. Application July 7, 1931, Serial No. 549,283. 11 Claims. (Cl. 33—34.)

1. In a ruling machine, the combination with ruling devices, of a stop against which the sheets are brought after passing the ruling devices, a conveyor for carrying the sheets to and against the stop, the conveyor having a receiving end, a support for the receiving end, a second endless conveyor for delivering the sheets to the first conveyor and having a sheet carrying stretch and a return stretch, and means for supporting the carrying and return stretches of the second conveyor at its delivery end above the support and receiving end of the first conveyor and permitting their adjustment thereover toward and from the stop.

2,015,437. MACHINE FOR APPLYING METALLIC FASTENERS TO ENVELOPES. Abraham Novick, Flushing, N. Y., assignor to United States Envelope Company, Springfield, Mass., a corporation of Maine. Application January 11, 1933, Serial No. 651,193. 12 Claims. (Cl. 1—2.)

1. In a machine, the combination with means for intermittently feeding a continuous metallic strip comprising tongue and prong fasteners connected prong to prong, means for severing flat fastener blanks one by one from the strip, means for bending prongs on each

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severed blank, and a movable delivery chute for the fasteners, of means operating in unison for transferring a severed flat blank from the severing means for operation upon by the prong bending means and for transferring a fastener with bent prongs from the prong bending means to the chute.

2,015,552. WRAPPER PRINTING AND ADDRESSING MACHINE. Harmon P. Elliott, Watertown, Mass. Application December 30, 1933, Serial No. 704,659. 38 Claims. (Cl. 101—58.)

1. A wrapper printing and addressing machine comprising means for advancing a web of paper, means for applying the same printed data and different addresses to successive wrapper blanks, adjustable means for changing the lengths of the printed and addressed wrappers, and means for changing the relation between the printed data and addresses on the wrappers.

21. In an addressing machine means for moving a succession of address bearing devices through a printing position, printing means for printing from the devices, means operated by the printing means for applying a distinguishing mark to the devices, and means controlled by the devices for disabling at the same time both the printing means and the mark applying means to prevent the operation of both means on the selected devices.

25. A wrapper printing and addressing machine, comprising means for applying different addresses to successive wrapper blanks, printing means for printing data on successive wrapper blanks, and means for applying different distinguishing marks in different distinguishing locations on selected wrapper blanks.

2,015,652. DEVICE UTILIZED IN CONJUNCTION WITH SHEET PRINTING PRESSES FOR SPRAYING THE PRINTED SHEETS WITH LIQUID PARAFFIN OR THE LIKE. Kurt Bergner, Taucha, near Leipzig, Germany, assignor to "Rodas" Maschinen-Fabrik Roderick W. Horne, Taucha, near Leipzig, Germany, a corporation of Germany. Application March 1, 1933. Serial No. 659,064. In Germany March 8, 1932. 6 Claims. (Cl. 101—422.)

6. The combination with a press, having a delivery table and adapted for printing and delivering sheets in succession on the table with the printed faces up, of mechanism for coating the printed faces with quick drying anti-offset liquid, the mechanism comprising spray producing means mounted to move toward and from the delivery end of the press parallel with the table above the sheets to be coated, mechanism to reciprocate the spray producing means, and mechanism for causing a spray of anti-offset liquid to be projected from the means in a direction away from the delivery end of the press and onto the sheets on the table as the spraying means moves over the sheets in one direction only.

2,015,770. FITTING GEAR FOR COLOR PRINTING MACHINES. John Warren Vedder, Worcester, Mass., assignor to Rice, Barton & Fales, Incorporated, Worcester, Mass., a corporation of Massachusetts. Application October 31, 1932, Serial No. 640,515. Renewed July 31, 1935. 2 Claims. (Cl. 74—395.)

1. As an article of manufacture, a gear having an integral extension, an integral disc guard on the end of the extension spaced materially from the gear, and an adjusting device beyond the guard but mounted thereon at a distance away from its axis, for operation by applying a radial rod to it, whereby the guard protects the fingers of the operator of the rod from engaging the gear.

2,015,800. LABEL WIPING DEVICE. Carl Holm, Worcester, Mass., assignor to Economic Machinery Company, Worcester, Mass., a corporation of Massachusetts. Application August 23, 1934, Serial No. 741,135. 8 Claims. (Cl. 216—9.)

1. In a label wiping device, the combination with means for holding a label on an article to be labeled, of a flexible flat wiper, means for pivoting the wiper in a position in which, on the forward stroke, the wiper will wipe down one edge of the label and, on the reverse stroke, the opposite side of the wiper will wipe down the other end of the label, and means for swinging the wiper on its pivot.

2,016,036. PHOTO-ELECTRIC SYSTEM. Alan S. Fitz Gerald, Wynnewood, Pa. Application February 4, 1932, Serial No. 590,912. 27 Claims. (Cl. 250—41.5.)

1. A photo-electric system including optical means whereby the light derived from an optical field is directed, through separate light channels, on to a plurality of photo-sensitive elements, the light channels including screens which are divided into transparent and opaque portions, the screens being divided in like manner, the respective transparent and opaque portions being complementary, whereby the light effect due to an object moving in the field is caused alternately to affect the photo-sensitive elements, a balanced electric circuit including the photo-sensitive elements whereby a voltage is set up in accordance with the difference between the light stimuli of the photo-sensitive elements, and means responsive to rate of change of the voltage to effect a circuit controlling action in accordance with the movement of the object.

2,016,432. TYPE BINDING MEANS. Otto Hoffmann, Zurich, Switzerland. Application May 2, 1935, Serial No. 19,484. In Germany May 7, 1934. 3 Claims. (Cl. 101—404.)

1. In a type binding device, a tape to be passed about a type body, a tension spring for holding the tape in position of use on the type body, a clamping appliance for adjusting the tape to position of use, a tape guiding member comprised by the appliance, an angularly deflected projection on the guiding member, and a buckle interlocking with the projection and connected to the spring rearwardly of the projection for clampingly securing the tape between the projection and the front part of the buckle by action of the spring.

2,016,590. METHOD OF FINISHING RUBBER ROLLERS. Elmer J. Bussing, Chicago, Ill., assignor to The Chicago Daily News, Inc., Chicago, Ill., a corporation of Illinois. Application February 20, 1935, Serial No. 7,350. 16 Claims. (Cl. 51—278.)

12. The method of finishing rubber articles, which comprises subjecting the article to the action of a grinding wheel driven at high speed, and directing an atomized spray of air and water in slight amount onto the article at approximately the area of contact between the grinding wheel and the article.

Offset-Lith:

2,016,517. METHOD OF PREPARING PRINTING SURFACES. George S. Rowell, Cleveland, Ohio, assignor to Multigraph Company, Wilmington, Del., a corporation of Delaware. No Drawing. Application September 2, 1932, Serial No. 631,588. 4 Claims. (Cl. 41—41.5.)

4. Method of preparing for re-use a planographic printing surface having a greasy image thereon consisting in the following steps, removing the greasy image from the surface with a solvent for the greasy substance of the images in the presence of an aqueous etching solution containing ammonium phosphate, rinsing to remove a portion of the solution, drying and thereafter forming an image thereon with a greasy material reactive with the treated surface.

2,014,760. PAINT, LITHOGRAPHIC VARNISH, PRINTING INK, AND THE LIKE AND PROCESS OF MAKING SAME. Wilfred Graham Dewsbury, London, and Arnold Davies, West Norwood, London, England. No Drawing. Application October 29, 1934, Serial No. 750,590. In Great Britain October 18, 1934. 7 Claims. (Cl. 134—39.)

1. Process for the manufacture of paints, lithographic varnishes, printing inks and the like comprising heating a polymerized vegetable drying oil to about 130° C. with about 2-5% of a substance of the group comprising glue, gelatine and isinglass until a mass of fibres has separated, isolating the liquid product, adding about 0.5% and not more than about 1% of finely divided graphite thereto, milling the mixture until the graphite has been brought to colloidal dimensions and incorporating a pigment with the vehicle thus produced.

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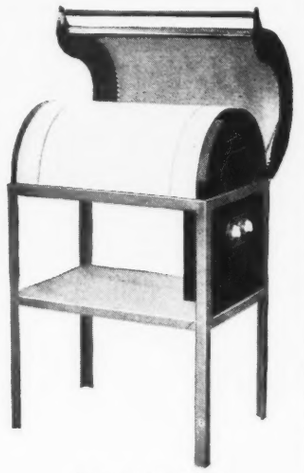

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Plate Making:

2,014,513. APPARATUS FOR MAKING PRINTING SURFACES. William Zimmermann, Forest Hills, N. Y. Original application May 4, 1933, Serial No. 669,326. Divided and this application October 29, 1934, Serial No. 750,454. 14 Claims. (Cl. 95—74.)

1. A printing assembly comprising separable elements including a positive having a design pattern thereon, a negative of the positive and in which the design is of slightly reduced size from that on the positive, and is otherwise a facsimile of the positive pattern, and a screen, the elements adapted to be positioned on a sensitized member, and the sensitized member adapted to have positioned thereon in succession, first the negative and screen with the screen between the negative and the sensitized member, and then the positive alone, and in each case with the design patterns centered relative to a common point.

2,011,584. METHOD AND MEANS FOR PREPARING STEREOTYPE MATRICES FOR MULTI-COLOR PRINTING. Albert L. Lengel, Oakland, Calif., and Ernest G. Beveridge, Glen Ridge, N. J., assignors to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York; Irving Trust Company, permanent trustee. Application December 24, 1931, Serial No. 582,912. 8 Claims. (Cl. 33—184.5.)

1. A register rack for use in connection with multi-color printing comprising a base, a frame hingedly mounted on the base, the base serving as a mount for a matrix, means for centering the matrix on the base relatively to the frame, a plurality of members adjustably mounted in the frame for determining the position of registration points on the matrix, and other means secured to the frame for uniformly marking the matrix simultaneously on a plurality of adjacent edges with respect to the points for trimming preparatory to casting printing plates therefrom.

2,015,304. ELECTROTYPING AND PLATING APPARATUS. Theodor F. Frase, Los Angeles, Calif. Application April 19, 1932, Serial No. 606,203. 7 Claims. (Cl. 204—5.)

1. In an apparatus, a reservoir for holding a bath having a central raised portion for bearing purposes at point outside of the bath, a conductor mounted on the top edge of the reservoir, means for supporting parts to be plated on the conductor and so as to be suspended in the bath to form the cathodes of the apparatus, a rotor having a supporting head above the raised portion and having operating means extending downwardly through the raised portion to a point below the reservoir, the head being provided with radial grooves of a cross-section wider near the top and narrower near the bottom, metal-supplying anodes removably mounted in the grooves with arms extending radially from the head and having portions formed to be disposed for tangential and up and down stirring in the bath, and means for supplying an electric current to the head and the conductor.

2,015,762. COMBINED PREPARING FRAME AND PRINTING DEVICE. Sverre Quisling, Madison, Wis. Application October 17, 1933, Serial No. 693,993. 3 Claims. (Cl. 101—269.)

1. In a printing press apparatus, a table for supporting material during engraving or preparing the negative, the table having slotted, upturned flanges at two opposite sides, with teeth so arranged in the slots as to engage a perforated roller, which roller is provided with a handle for revolving it so that it may be thus moved across the length of the table to compress material placed thereon.

2,016,270. PRINTING DEVICE FOR LENTICULATED FILMS. Hans Arni, Falkensee, near Berlin, Fritz Fischer, Berlin-Charlottenburg, and Kurt Raentsch, Berlin-Teltow, Germany, assignors to Opticolor Aktiengesellschaft, Glarus, Switzerland, a corporation of Switzerland. Application September 8, 1933, Serial No. 688,566. In Germany July 20, 1933. 9 Claims. (Cl. 88—24.)

1. In combination, an original film having thereon a multiplicity of lenticulations and a group of color records behind each of the lenticulations, a copy film having similar lenticulations thereon, means for passing light through the original film to the copy film, an optical system disposed in the path of light passing between the films, a support on which portions of the system are mounted, a pendulum connected to the support, and means to rock the pendulum and support to cause movement of the portions of the optical system transversely to the path taken by the light.

2,016,283. MOLD FOR CASTING STEREOTYPE PRINTING PLATES. William F. Huck, Richmond Hill, N. Y., assignor to Irving Trust Company, permanent trustee for R. Hoe & Co., Inc., New York, N. Y., a corporation of New York. Application June 2, 1932, Serial No. 614,910. 10 Claims. (Cl. 22—4.)

1. In a mold for casting curved stereotype printing plates, a concave mold member and a coacting convex mold member, means for securing a matrix to the concave mold member, revolvable means for tightening and securing heat insulating material on the convex mold member, recesses in the edges of the convex member, and heating devices in the recesses.

2,016,598. HINGE FOR TYPE CASTING MACHINES. George A. Field, Minneapolis, Minn. Application June 29, 1933, Serial No. 678,176. 3 Claims. (Cl. 16—179.)

1. A hinge for the plates of a stereotype casting machine comprising a lug projecting from one end of one plate longitudinally thereof and disposed substantially between the planes of the top and bottom surfaces of the plate, the lug having a curved surface on its side adjacent the other plate, the surface terminating in a substantially flat surface adjacent the end of the lug, the other plate having a projection at its end with a surface inclined at an obtuse angle to the top of the plate and having a corner formed by the surface and another surface adjacent the top of the plate, the other plate also having a lug projecting from the end having a portion extending transversely of the first mentioned lug, the portion having an elongated slot therein extending substantially at right angles to the top surface of the other plate and a rod extending in and substantially rigid with the first mentioned lug and passing through the slot, the curved surface of the first mentioned lug sliding over the corner on the other plate as plates are swung to open position and the substantially flat surface on the first mentioned lug engaging the inclined surface on the other plate when the plates are in open position.

2,016,599. MASTER SHEET. Roy V. Graves, Minneapolis, Minn., assignor to The Graves Process, Inc., Minneapolis, Minn., a corporation of Delaware. Application January 22, 1932, Serial No. 588,143. 2 Claims. (Cl. 41—46.)

2. The method of producing a master sheet to be used in the production of printing plates which consists in depositing an actinically opaque coating on one face of a transparent sheet, superimposing a translucent covering sheet of porous material on the coating, and making character impressions on the covering sheet, whereby a portion of the coating is removed from the transparent sheet and transferred to the covering sheet for operative proof-reading purposes.

Printing Presses:

2,011,736. MINERVA PRINTING PRESS. Manuel Alonso Suarez, Habana, Cuba. Application October 10, 1933, Serial No. 693,012. In Cuba August 26, 1933. 4 Claims. (Cl. 101—291.)

4. In a printing press the combination with a stationary platen and an oscillating bed controlled by a manual operating lever, of two feed rollers between which a web may pass in close contact before reaching the stationary platen, means to cause one of the feed rollers to rotate intermittently including a one-way drive clutch on a shaft of the intermittently actuated roller, the clutch being provided with a driving member which is rotatably and slidably mounted on the shaft and a driven member fixed to the shaft, the driving member carrying a gear wheel, a rack engaging the gear wheel, a yoke supporting the rack and forming a guide for it, the yoke being oscillatorily mounted on the shaft provided with the clutch, a guiding piece fixed to the frame of the oscillating bed, near its pivotal center, a connecting piece mounted on the guiding piece and slidably adjustable thereon, a pivotal connection whose members are respectively screwed in a head on the rack and in the connecting piece,

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slotted supporting pieces oscillatorily mounted on the ends of the shaft of the roller provided with the clutch and on which are slidably mounted the bearings of the other feed roller, threaded pins projecting from the bearings and passing through a head of the supporting pieces, nuts screwed on the projecting ends of the screws and which rest against the head of the supporting pieces, coil springs on the pins projecting from the bearings between these bearings and the heads of the supporting pieces to control the pressure of one feed roller against the other feed roller through the web passing between them, and means comprising a collar on a counter-shaft forming part of an operating mechanism connected to the operating lever of the press, a cable having one end connected to the periphery of the collar, the other end of the cable being connected to one end of a lever pivoted intermediate its ends, the other end of the lever being connected by a cable to a spring controlled arm provided for controlling the movement of the slidable driving member which is disengaged when the bed operating lever is placed in an inoperative position.

2,012,245. PRINTING PRESS. Charles A. Meisel, Milton, Mass., assignor to Meisel Press Manufacturing Company, Boston, Mass., a corporation of Massachusetts. Application April 18, 1933, Serial No. 666,709. 5 Claims. (Cl. 101—178.)

1. A printing press of the multi-color rotary web type comprising a set of independent self-contained frames, each comprising impression means and a plurality of type cylinders, the mechanisms of each set being similarly arranged but differing in the size of the type cylinders, frames carrying inking mechanism adjustable to cooperate with such type cylinders of different sizes, the first mentioned frames of the set being readily bodily movable to place any one thereof into cooperation with the frames carrying the inking mechanism, and means for handling a web which passes through the so cooperating assemblage.

2,013,687. PRINTING PRESS. Montgomery O. Jones and Wesley P. Shomaker, Richmond, Va. Application March 2, 1933, Serial No. 659,311. 19 Claims. (Cl. 101—76.)

1. In a printing press, a cylinder, movable printing mechanism mounted thereon, a shaft rotatably mounted in the cylinder, means connecting the shaft and printing mechanism whereby rotary movement of the former relative to the cylinder effects movement of the latter, ratchet and pawl mechanism for effecting rotary movement of the shaft relative to the cylinder, a member movable into position to be engaged by the pawl upon rotation of the cylinder, and means for periodically moving the member into and out of the position.

2,014,016. PRINTING PRESS. Curtis S. Crafts, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application May 7, 1932, Serial No. 609,785. 4 Claims. (Cl. 270—41.)

1. A folding mechanism for printing presses including in combination of a pair of side by side formers, two pairs of nipping rollers for each former, one of each pair being mounted for yielding movement perpendicularly to the web, a folding cylinder and its associated cutting cylinder for each former and below the nipping rollers, a pair of drawing rollers between each folding cylinder and the nipping rollers, a compensating roller intermediate the formers over which one longitudinally folded web is led for cross associate runs, means for variably positioning the compensating roller including a pair of pivoted supporting arms therefor, means for driving all of the rollers at a speed slightly in excess of that of the web, the driving means for compensating roller including a gear coaxial with the roller supporting arms, whereby the compensating roller may be driven in any of its positions, the driving means for the rollers being carried by those rollers which are not yieldingly mounted.

2,014,095. FORM ROLL DRIVE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application May 11, 1932, Serial No. 610,551. Renewed February 6, 1935. 6 Claims. (Cl. 101—349.)

1. In an inking mechanism, the combination with a form roller and a plate cylinder having end plate clamps thereon, of means for driving the form roll from the plate cylinder through the end clamps.

2,014,107. PROCESS FOR THE PRODUCTION OF PRINTING ROLLS. Leander H. Harrison, New York, N. Y. No Drawing. Application February 28, 1934, Serial No. 713,301. 4 Claims. (Cl. 18—55.)

3. In the production of rubber printing rolls, the steps which consist in covering an embossed mold with a sheet of unvulcanized hard rubber stock, placing them in a vulcanizing press, vulcanizing until the hard rubber is semi-vulcanized and is still pliable, removing the semi-vulcanized pliable plate from the mold, cementing it around a mandrel with the embossed side exposed, covering the embossed side thereof with unvulcanized soft rubber, wrapping a material around the same, vulcanizing, grinding the exposed smooth surface of the vulcanized soft rubber, removing the vulcanized soft rubber tube from the mandrel, placing the tube upon a mandrel with the smooth face exposed, grinding the exposed surface, removing the vulcanized soft rubber tube from the mandrel and cementing the tube upon a mandrel with the embossed face exposed.

2,014,303. ROTARY INTAGLIO PRINTING. Adolph Weiss, Brooklyn, N. Y. Application July 22, 1933, Serial No. 681,692. 87 Claims. (Cl. 101—157.)

1. In a rotary intaglio printing press, the combination of a press supporting structure comprising side frames, a rotary intaglio printing cylinder having a drive shaft, the shaft being journaled in and the cylinder supported by the side frames, ink housing means comprising portions of the frames contiguous the journals, and additional members cooperating therewith, the cylinder having a portion of its periphery within the housing means for the application of ink to the cylinder, and the housing means and the cylinder providing an enclosure adapted to prevent substantial evaporation of the volatile ingredients from the ink,

2,014,975. COMBINATION GRIPPER FOR PRINTING PRESSES. Samuel Meckler St. Paul, Minn. Application August 30, 1934, Serial No. 742,045. 3 Claims. (Cl. 101—408.)

1. A combination gripper device for printing presses, the device comprising an L-shaped member formed with its short arm comprising an elongated sheet metal grip of U-shape in cross section and adapted to be frictionally and removably retained on a gripper bar of a printing press, the other and longer arm of the device extending integrally from the short arm and comprising a pair of flat vertically registering arms of spring metal, one of which extends normally in angular relation from the other arm, the latter arm being normally in common plane with one side of the grip, and spring means intermediate the arms normally spreading them apart, the grip member provided with a row of serrations parallel to one of its free edges for the purpose set forth.

2,015,086. PRINTING MACHINE FOR TUBULAR BODIES. Horace J. Paynter, Maplewood, and Arthur E. Bumpus, Union, N. J., assignors to American Can Company, New York, N. Y. a corporation of New Jersey. Application May 27, 1929, Serial No. 366,114. 25 Claims. (Cl. 101—38.)

1. An apparatus for printing tubular container bodies comprising in combination, a supporting frame, a chuck frame, a sleeve carried by the chuck frame, an expanding chuck carried by the sleeve and adapted to engage the inside of a container body, the chuck frame being hinged on a line parallel with the axis of the chuck, printing means positioned adjacent the chuck and adapted to transfer a printing design to a container body held on the chuck, and means for moving the chuck frame on its hinged connection to position the container body into printing engagement with the printing means.

2,016,277. SHEET REGISTERING MECHANISM FOR PRINTING MACHINES. William K. Eckhard, Dunellen, N. J., assignor to Irving Trust Company, permanent trustee for R. Hoe & Co., Inc., New York, N. Y., a corporation of New York. Application March 18, 1933, Serial No. 661,441. 22 Claims. (Cl. 101—233.)

1. In a registering device for a sheet fed printing machine, a manually adjustable member, a plurality of stops reciprocatingly mounted on the manually adjustable member, the stops being adapted to be engaged by the leading edge of a sheet to register same and then to move out of the path of movement of the sheet in a direction perpendicular to the path.

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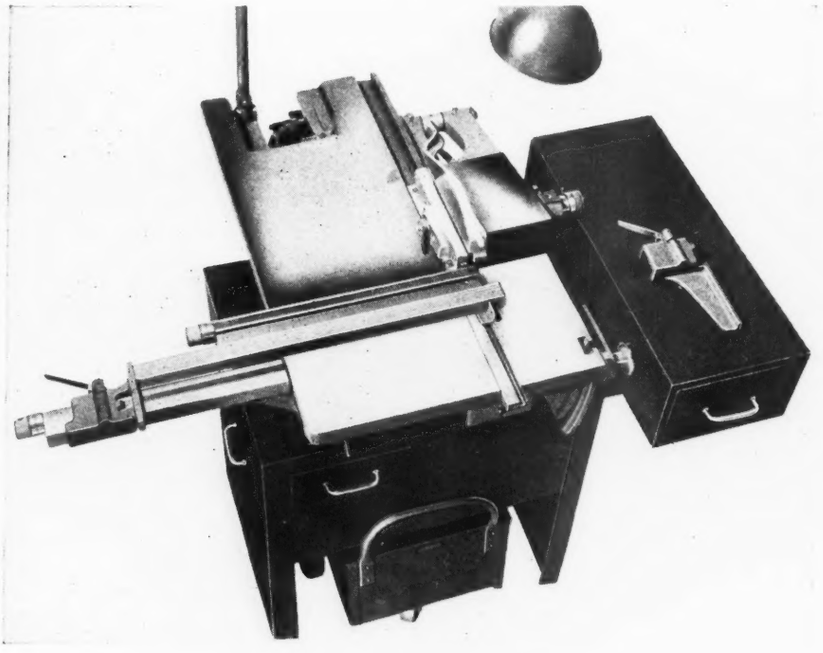

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2,016,221. REGISTERING DEVICE FOR PRINTING PRESSES. Joseph Bard, Hartford, Conn. Application June 1, 1935, Serial No. 24,564. 23 Claims. (Cl. 101—413.)

1. A sheet receiving member having cooperating laterally spaced sheet engaging portions extending longitudinally of the member and connected laterally to inhibit the entry of a sheet above one cooperating portion and below the other.

2,016,287. INKING MECHANISM FOR PRINTING MACHINES. Frederick Grafton Lougee, New Malden, England, assignor to Irving Trust Company, permanent trustee for R. Hoe & Co., Inc., New York, N. Y., a corporation of New York. Application July 2, 1932, Serial No. 620,690. In Great Britain, July 24, 1931. 8 Claims. (Cl. 101—366.)

1. In an inking mechanism for printing machines having printing couples and ink supplying source therefor, a portable ink reservoir, and means operably interposed between the reservoir and a selected printing couple for forcibly supplying a film of ink to the selected printing couple independently of the ink supplying source.

2,016,309. PRINTING AND ASSOCIATING MECHANISM. Adolph M. Zuckerman, New York, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York; Irving Trust Company, permanent trustee. Application April 7, 1932, Serial No. 603,757. 17 Claims. (Cl. 270—11.)

1. In an associating mechanism, the combination of means for producing a plurality of products having differing characteristics, a plurality of cutting mechanisms, one for each kind of product, a plurality of collecting cylinders, one for each kind of product, transfer and folding cylinders, one for each collecting cylinder, and an associating cylinder common to all the folding cylinders by which all the products from the folding cylinders may be associated in a predetermined relation.

2,017,010. PRINTING PRESS. Charles A. Meisel, and George R. Williams, Brookline, Mass., assignors to Meisel Press Manufacturing Company, Boston, Mass., a corporation of Massachusetts. Application May 4, 1934, Serial No. 723,850. 13 Claims. (Cl. 101—212.)

1. A web press comprising a plate cylinder, means for reciprocating the same through a stroke substantially equivalent to a single revolution of the cylinder, an impression surface over which the web is trained and in opposition to which the cylinder moves, rack and pinion means in fixed relation to the cylinder arranged to revolve it in the same direction during both phases of its reciprocatory movement, inking means cooperating with the cylinder and means to separate cylinder and impression surface during one phase of the reciprocation of the former.

Aniline Inks

Continued from Page 131

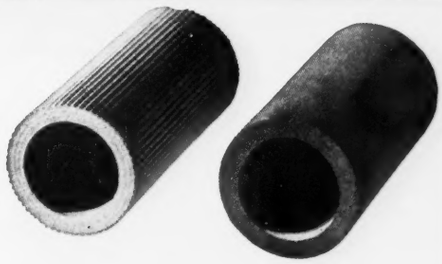
have been achieved through the use of these new opaque aniline inks they have not made things any easier in the press-room as they have a heavier body than the transparent inks and have a tendency to become thicker during a long run, necessitating frequent additions of alcohol to keep them at working consistency. Also the heavy pigments have a tendency to settle out of the thin vehicle and pile up on the rolls and plates, making frequent washups necessary. Furthermore they do not dry quite as rapidly nor to as brilliant a finish as the transparent inks that contain merely dye and solvent. In spite of these drawbacks, however, the opaque inks do have advantages over the transparent colors in that they produce a more solid effect, especially with type forms, line engravings and designs with solid areas; they also make overprinting of aniline colors possible and adhere well to the hard, smooth surface of cellophane and similar materials.

A Recent Development

One of the more recent developments in connection with the printing of opaque aniline inks has been the printing in reverse on the reverse side of transparent cellulosic materials in such manner that the printing is seen through the sheets when they are made up into bags or envelopes, or used as wrappers on various products. The great advantage of this method of printing is that the printed design, when viewed from the right side of the stock, appears to have been coated with a clear, glossy overprint varnish. Another, and more practical, advantage of this procedure is that the printed colors cannot be rubbed or scratched off when the finished bags or envelopes are handled. Neither is there any danger of the colors bleeding if the containers are handled with wet or perspired fingers.

Solvents for Aniline Inks

A great variety of solvents have been used with more or less success in the preparation of aniline inks. Denatured alcohol is still the most common solvent because of its relative cheapness, rapid drying qualities and the fact that it most readily dissolves the spirit-soluble dyestuffs. Its extreme volatility, however, makes it necessary to include a percentage of higher-



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boiling, less volatile solvent in the formula to slow up the resultant rate of evaporation. Ethylene glycol mono-ethyl ether, ethylene glycol mono-methyl ether, the acetates of these two materials, ethylene dichloride, methyl-cyclohexanol acetate, methyl-cyclohexanone and similar medium-boiling solvents have been used for this purpose with good results. Other solvents such as xylol, toluol, furfural, etc., have been used to cheapen the inks but in general the results have been very poor and their use is not to be recommended.

Shellac in Aniline Inks

Although shellac is the resin most widely used in the preparation of aniline inks its use for this purpose is attended with several disadvantages among which may be mentioned its marked tendency to clog small type and line cuts and to dry up and become very "gummy" on the press. For this reason many attempts have been made to find a resin that would be more suitable for the purpose. Substitute synthetic shellacs, such as Novo-lac, have been tried many times but without much success. So far the most promising results seem to have been obtained through the use of certain spirit-soluble natural resins such as sandarac and Manila copal. Sandarac is readily soluble in alcohol, amyl acetate and other organic solvents and has given good results in certain cases. It is harder than shellac and the dried films have, therefore, a greater degree of abrasion resistance. Manila copal (not the true "African" copal) is soluble in a mixture of methylated spirit and amyl alcohol. Since this resin is considerably more elastic than shellac it may be used to good advantage in conjunction with shellac to increase the elasticity and toughness of the dried film left on evaporation of the solvent mixture.

Adhesive Agent

In the production of aniline inks for printing on moisture-proof cellulosic materials it is at times necessary to add a small percentage of lacquer to the inks to increase their adhesion for this extremely non-absorbent material. Lacquers based on nitrocellulose dissolved in a solvent such as ethylene glycol mono-ethyl ether are largely used in this country; while in Europe considerable success has been achieved through the use of the cellulose esters such as ethyl collulose and benzyl cellulose dissolved in special solvents that bring out all the valuable adhesive properties of these materials. It might be mentioned that when printing moisture-proof cellulosic materials it is frequently necessary to pass the freshly printed sheets over an electric hot-plate or through a short, electrically-heated hot-air oven to more firmly affix the inks to the stock and prevent them from later being rubbed off.

Advantages of Using Concentrated Inks in Manufacture

Although it is possible for the ink maker to manufacture aniline inks from "start to finish" in his own plant, it is certainly more convenient and perhaps, in the long run, cheaper for him to purchase the concentrated inks from one of the dyestuff concerns that specialize in this line and merely concern himself with their proper reduction and blending, rather than to attempt to make the solutions himself. The dyestuff maker knows the peculiar properties of each of his dyes and prepares the solutions in very large batches, thus minimizing loss of dyestuff through dusting and solvent through evaporation. Also he is able to pass along to the ink maker the savings made possible by large scale production.

CLEANER HALFTONES WITH FLEX DRY MATS

Halftones are clean looking when the dots are clean and free from defects, particularly the dots in the highlights and middle tones. FLEX dry mats make good halftone and Ben Day reproductions because they mold well at low pressures and retain clean impressions of the screen dots.

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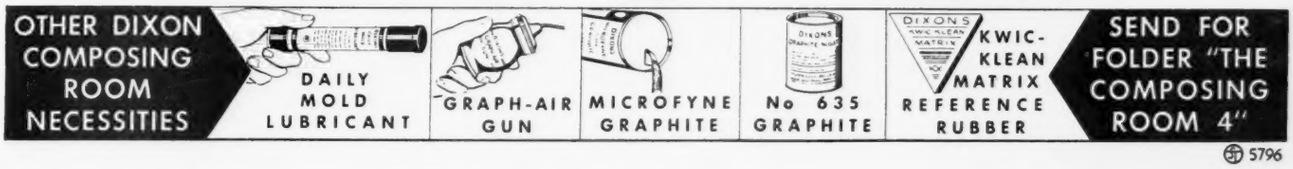

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For the ink maker who prefers to make up his own solutions there have been selected a number of suitably fast, spirit-soluble dyes that dissolve readily and produce smooth, brilliant inks. Both fast spirit colors and dye bases are being used for the preparation of aniline inks. The former yield very brilliant, transparent inks while the latter produce softer and more opaque results. Most of these colors are insoluble in water and are sufficiently permanent for most purposes. Most of the fast spirit colors produce inks which will stand hot waxing; whereas the inks made with the dye base will not resist this treatment. The latter, however, are entirely suitable for use on glassine and cellophane surfaces. In the preparation of inks for hot waxing it is recommended that shellac be omitted and the formulas be rebalanced accordingly.

In making up aniline inks the solvent is warmed to about 130 degrees Fahrenheit and the dyestuff is sprinkled in slowly and with constant stirring until solution is complete. As some dyes are more difficultly soluble than others it is frequently necessary to continue the warming and stirring for some time after all the dye has been added before solution is complete. Straining the solution through fine cloth will remove the small amount of insoluble material usually present in the dyes and will insure a clear, sparkling solution. A power mixing machine is a great aid in the manufacture of aniline inks, although it is not absolutely essential. As mentioned before, however, a closed ball, pebble or tumbling mill is essential in the manufacture of opaque aniline inks that require actual grinding to fit them for use.

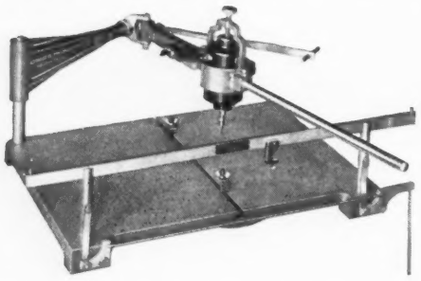
Maintaining Color Value

A serious drawback to the more widespread use of aniline inks is their relatively high cost as compared with the usual types of oil printing inks. There are two reasons for this high cost: first the dyestuffs and solvents used are comparatively expensive as ink materials and, secondly, for every pound of aniline ink actually applied to the stock several pounds of solvent are evaporated into the air and lost. It is necessary to add solvent to the ink in the fountain every so often to compensate for this loss. This must be done carefully to insure that no marked color changes will show on the finished work due to rapid changing of the strength or consistency of the ink. The introduction of covered ink fountains and distributing rollers will undoubtedly overcome much of this evaporation and will result in more uniform work and a considerable saving of solvent. Another factor that influences depth of color and rate of evaporation is the speed of the press. This must be adjusted carefully to the optimum speed for best printing results and low solvent loss.

Appropriate Plates

Aniline printing inks are being used successfully on a number of different types of printing plates such as nickel-faced copper electros, nickeltypes, nickel-plated stereotypes, rubber stereotypes, engraved (hand cut) rubber plates, line engravings and zinc etchings. As yet, however, due to the fluid nature of the inks, it has not been found practical to print fine halftones, although coarse-screen, deep-etched halftones have been printed with some measure of success by several houses. At the present time rubber stereotypes appear to be the most generally satisfactory type of plate for use with aniline inks. Type faces as small as five point may be reproduced by this method which consists, in outline,

DIXON HEAVY DUTY ROUTER



COMPLETE
$95.00

Routs . . .
Zinc
Copper
Stereotype
Electrotype
Wood

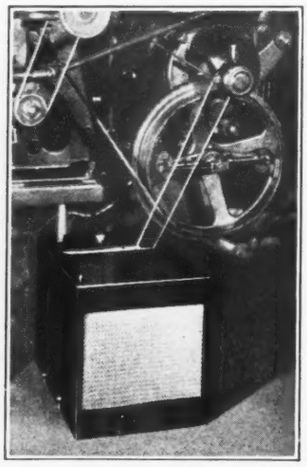
The Dixon Router and Type-high Planer is large and powerful enough to take care of the requirements of any size of newspaper, printing plant or engraving department. It is constructed to give years of dependable service. Send for further information.

SPECIFICATIONS: MOTOR—Ball-bearing, 20,000 R.P.M., Fan-cooled, heavy duty. Raised and lowered inside of arm by hand wheel. FOOT-STIRRUP (not illustrated)—Raises and lowers the arm by foot action to clear work. LIGHT FIXTURE—Located at side of motor over work. SWITCH—Located on side of motor. ARMS—Heavy, reinforced cast iron. BED—24½" x 18½". WORKHOLDER—Quick and positive. Complete with router bits, light bulb, type-high planer, gauge, cord and plug.

WATER BILLS . . . . LIMING OF MOLDS INCONVENIENCE

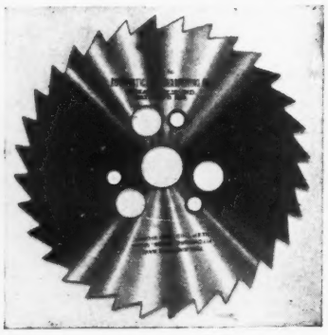
is Eliminated on Linotypes and Monotypes with the

MONOAQUA COOLER



It requires three quarts of soft water, which is circulated by a noiseless pump, cooled by means of two fan-cooled radiators driven direct from the machine, requiring no extra power. The Monoaqua Cooler, complete for Linotypes and Monotypes, $55.00.

SAW SHARPENING



Universal tooth saw for sawing linotype, stereotype and wood-mounted electrotypes. Furnished for any make of machine.

In our modernly equipped plant, which is the largest in the country for sharpening printers' and stereotypers' saws, your saws will be sharpened uniform in swage, shape and height, giving longer and better service. All saws returned the same day received, in our special self-addressed mailing carton.

NEW SAWS

Send for our low price and trade-in plan on new saws for any make of machine. Our saws are hollow ground and made of the very best of steel and are unconditionally guaranteed.

Automatic Saw Sharpening Co.
735-41 E. Ohio St. Indianapolis, Ind.

of making a mold of the metal form to be cast into rubber, pressing the mold and a thick sheet of plastic rubber together under great pressure in a special hydraulic-electric press, and subsequently vulcanizing the rubber plate. Printers report that under normal usage several million impressions may be obtained from each plate before serious wear takes place.

What the future will bring in the field of aniline printing and printing inks can only be conjectured. Undoubtedly great advances will be made from both the technical and cost standpoints and hence it will be well worth the while of all engaged in the use of printing inks to study the situation carefully and keep abreast of all new developments.

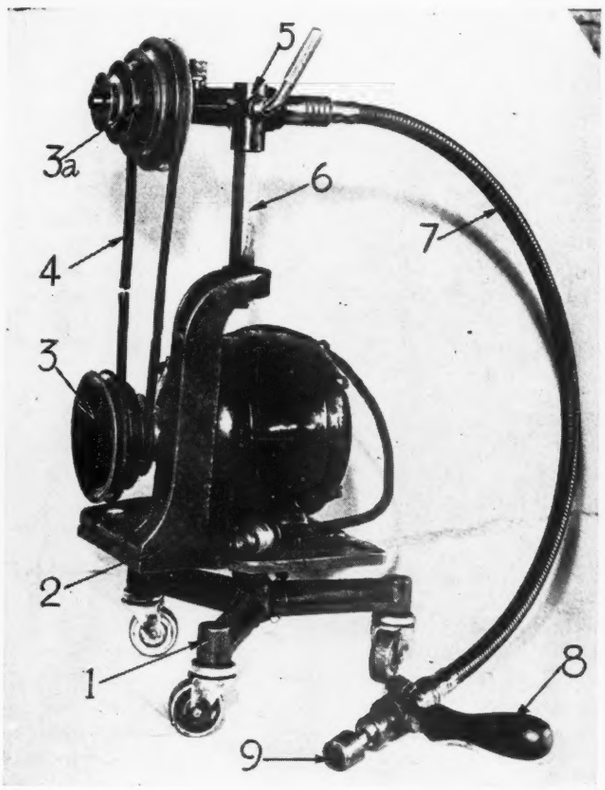
Fountain

Cleaning Expedited by Means of Mechanical Drive

By STAFF WRITER

THE operation of cleaning out and washing newspaper printing press pump type ink fountains preparatory to changing ink from black to color or *vice versa*, can be performed more easily with the help of a motor-driven device in place of the usual hand-crank provided to operate the pumping mechanism for flushing the fountain. The mechanism illustrated was adapted and modified by Charles W. Little, pressroom superintendent of the Akron (O.) *Times-Press*.

In actual practice, the time required to flush a fountain is shortened considerably. When the fountain is ready for



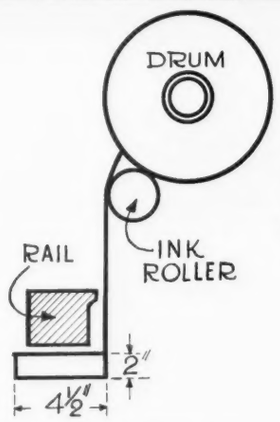


Diagram showing drip pan in position for washing ink drum on newspaper press in plant of Akron Times Press.

flushing, the chuck *9* in the illustration is attached to the fountain in place of the hand crank. A half-gallon of coal oil is poured into the fountain reservoir. The motor is turned on to operate the fountain pump. When the coal oil has washed the remaining ink from the fountain parts, the belt can be crossed on the V pulleys 3 and *3a* to reverse the pumping mechanism and cause the coal oil to flow back into the reservoir from which it is removed.

As a further aid to the cleaning of a fountain, a galvanized iron drip pan is provided (shown in end view in the diagram). The pan is mounted below the ink rail. One side of the pan is extended upwardly until its top edge terminates on a line below the center of the ink drum and parallel with its axis. Cleaning and wiping of the drum is expedited.

In the illustration the Craftsman flexible shaft outfit parts are identified as follows:

1 is Base with casters.
2 is Support for jack shaft.
3 and *3a* are 4-in. four-step V pulleys.
4 is composing machine 5/16 in. round leather belt fastened with C-hook.
5 is Head Stock.
6 is Head Stock Post.
7 is 43-in. Casing which houses the driving core (not shown).
8 is Grip for flexible shaft.
9 is Ball bearing Hand Piece or chuck.

The motor in the illustration was secured from a washing machine dealer. It is rated at ¼ h.p. and runs 1750 r.p.m.

Mr. Little explained that his press crews use a small kitchen utensil known as "Kitchen Aid" to clean the ink from fountain reservoirs. The utensil is shaped something like a miniature spade and is constructed of pliable rubber with a stiff handle. The edges are drawn down to a tapered edge, and being pliable, wipe the ink clean from the surface upon which it is used.

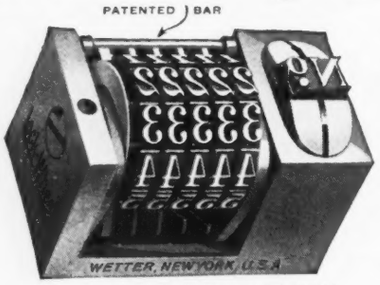
Gage Returns From West

Harry L. Gage, vice president in charge of sales with the Mergenthaler Linotype Company, returned to New York City September 14 after a business trip of eleven weeks that took him to leading cities along the Pacific Coast, in western Canada and throughout the Middle West.

In several cities Mr. Gage was called on for addresses before various organizations in the graphic arts.

WETTER

LOCK-WHEEL MODEL
Numbering Machine



PATENTED IN UNITED STATES, CANADA AND EUROPE

The Patented Bar locks the wheels and prevents them from turning half way over; assures alignment of figures and accurate numbering

•

Prices and further details on request

EVERY DEALER is authorized to give you the manufacturer's guarantee that the "Lock-Wheel" WETTER will do all claimed for it. Your troubles are ended when you use the "Lock-Wheel." The "Locking" Attachment is built in the machine—wheels cannot turn half way over or all the way over unless intended.

Lock-Wheel Model 5—5 wheels (9 picas long)
Lock-Wheel Model 6—6 wheels (10 picas long)
Lock-Wheel Model 7—7 wheels (11 picas long)
Lock-Wheel Model 8—8 wheels (11½ picas long)

Sold by all Dealers and Branches

American Type Founders Sales Corporation

Manufactured by WETTER NUMBERING MACHINE COMPANY
Atlantic Avenue and Logan Street, Brooklyn, New York

DEPENDABLE zinc is the key to good engraving. You can rely on the uniformity of American Zinc. It holds up under long runs and heavy mat work. You can depend on it not being too hard for fast etching, nor too soft for rough usage—it's tough. Finally, you can be certain that each sheet of American Zinc will be ground smoothly and accurately to gauge. If you want dependability in zinc, standardize on this good metal.

Reliability is also the outstanding character of American Offset Zinc Lithograph Plates.

AMERICAN ZINC PRODUCTS CO.
GREENCASTLE, INDIANA

Stock in	Distributors
Chicago	G. C. Dom Supply Co., Cincinnati, Ohio
Los Angeles	Johnstone Electric Co., Chicago, Ill.
New York City	J. M. & L. A. Osborn, Cleveland, Ohio
San Francisco	

Pressroom Suggestions

OCCASIONALLY a pressman is called upon to produce in flat tone ink effects a job either too small to make worthwhile the ordering of special inks, or perhaps a rush job in which the time element legislates against placing an ink order. Pressmen in such a predicament, doubtless, will be pleased to learn that ten to fifteen drops to the pound of *oil of lavender* mixed with any regular letterpress ink will remove the gloss of the varnish and produce a flat tone, but will not impair the tonal qualities of the pigments. The oil has a thinning effect, therefore it should be used sparingly. It also acts as a drier. A supply of oil of lavender should be in every pressman's ink cabinet. Plants engaged in the greeting card business, particularly, will find it useful. Wholesale druggists or ink makers can supply pressmen's needs.

Water Glass Useful in Pressroom

Water glass or liquid glass, obtainable at most drug stores, is an excellent medium for use in stiffening or bodying inks for letterpress purposes. When inks prove too soft to work well, small quantities of water glass stirred into the ink will prove helpful. Its use does not impair the tinctorial values of inks, therefore it may safely be used in black or colored job inks with like success.

Also, water glass makes an excellent adhesive with which to cement metal printing plates to patent bases where the work is close and the regular register hooks can not be employed. A piece of super or cheese cloth saturated with the water glass and placed between the plate and the patent base and the whole placed under pressure in a book press or beneath the cutter clamp until the liquid has dried is the usual method employed. As an added measure of precaution, some pressmen apply a thin coating to the top side of the patent base and to the under side of the electrotype before inserting the piece of cloth.

Water glass has yet another use in the pressroom. It may be employed in the forming of the male die for hot or cold embossing. A single draw sheet is cemented to the platen and allowed to dry. Water glass or a thin layer of fish glue may be used for this purpose. The rollers are then removed from the press; the chase inserted; the form inked with a hand brayer; and the platen raised sufficiently to take an impression of the inked dies upon the cemented draw. The platen is then lowered, and layers of chip board, softened with water glass, added at the spot or spots where proofs of the inked dies show upon the draw sheet. As usual in the preparation of such work, all surplus material should be cut away carefully.

The press should be run continuously until the male force has been built up as desired. As a final touch, give the force a last coat of water glass and lay over it a sheet of hard tissue paper. If the first sheet breaks or punches through upon impression, add a second sheet of tissue. Heat from the brass die will hasten the process of hardening the force.

Emery Dust An Aid To Printing Antique Stocks

Unsightly punch on the reverse side of sheets of antique stock printed by the typographic method frequently mars the appearance of an otherwise pleasing job. Particularly is this true when heavy lines of type appear upon a cover or title page that has not been backed up by another form. Antique or rough cover stocks printed upon platen presses present the greatest problem.

The difficulty may be overcome in the manner herewith described. After the form has been leveled and made ready, more ink is worked up on the ink disc and an impression of the form is pulled upon book paper.

Medium fine emery dust is sifted over the wet ink and, if the run is to be a long one, a thin coating of shellac is sprayed by means of an atomizer over the sheet, forming a "biscuit overlay." The sheet thus prepared is secured in exact register beneath the draw and sufficient packing removed to compensate for the sheet added.

Lacking an atomizer and shellac, fair results may be obtained by carefully drying the sheet over a radiator. electric plate, or other source of heat.

Bertha Goudy Passes

Mrs. Bertha M. Goudy, who composed and set the type for all the books issued by the Village Press, owned and operated by her husband, Frederic W. Goudy, the type designer, died October 22 of a heart attack at Deepdene, Marlborough-on-Hudson.

She was 67, and had been in poor health for almost two years, recently suffering a nervous breakdown. Her last achievement was the setting by hand of Mary Wolstonecraft Shelley's "Frankenstein." The book is extremely long, and Mrs. Goudy disliked the text, although she worked eight hours a day until all the type was set.

In 1903, Mr. and Mrs. Goudy founded the Village Press, in Park Ridge, Ill., and their first book, printed by Mr. Goudy and composed by his wife, was published in the same year. It was "The Essay on Printing," by William Morris.

Karnak Obelisk

Karnak Obelisk is the latest typeface announced by the Ludlow Typograph Company. It is a tall and slender member of the Karnak flat serif family, reflecting the present trend in typographical design.

The capitals may be letterspaced in the style now used in layouts. In newspaper and job composing rooms

MODERN TREND IN TYPE IS CLEARLY Shown in Ludlow's new Karnak Obelisk

a high letter count within a narrow measure may be obtained. The high lower case, it is said, is designed to contribute to the legibility of this new typeface.

Karnak Obelisk is now available in sizes from 18 to 72 point. Specimen sheets may be obtained upon request to the Ludlow Typograph Company.

Expert Wood Engraver

An interesting figure among commercial printers is Medard J. E. Rotsaert of the Empire Wood Type Mfg. and Engraving Co., New York. Mr. Rotsaert is well known as an expert in poster engraving and in the making of color blocks. He is a native of Belgium where he taught the printing art. He speaks English, French, German, Spanish, Netherlandish and Esperanto. He is a saw expert and many New York printers have had occasion to consult him about saw problems. He has been a member of the International Typographical Union for 27 years.

VICTORY
SAFETY LIFT TRUCK
Limited Quantity Offered at Less Than One-Fourth Original Price—THESE TRUCKS ARE BRAND NEW

$39.50

Here is an opportunity to get a truck at a fraction of its original price. These trucks are all steel construction, heavy bar stock frame Steel Wheels, 2½" face on 6", vital lifting parts of steel forgings.

Safety positive lift up to 1¾" by turning balanced screw handle. Insures safety and controlled speed in lowering.

Fewer parts than any other lift truck of equal capacity.

Height in low position, 6½"; raised position 8¼". Length of Lifting frame 38". Length of truck with handle up 50". Width of frame 20". Net Weight, 266 lbs. Lifting Capacity, over 3000 lbs.

Send your order today or write for further details if desired.

CRAFTSMEN MACHINERY Co.
307 Atlantic Avenue Boston, Massachusetts

NEW
MASTERPIECE CORK
CREEPER BLANKETS
By the manufacturers of
PADD-O-CORK
and
STERE-O-CORK
MOLDING BLANKETS

Tested and Approved by Leading Stereotypers

For the Stereotype Department that is looking for a molding combination; using this creeper, a cork and molding board, they can look forward to results not obtainable with present combinations.

We refer to depth in solids, middle tones and type cups or letter bowl.

In other words, depth where needed without excess depth in open spaces.

SAMPLES ON REQUEST

Coyne & Paddock, Inc.
(Successors to Paddock Cork Company)
Manufacturers of fine cork products for over 70 years
48-15 32nd Place Long Island City, N. Y.
Phone: Stillwell 4-4663

The Utmost in Efficiency and Stability in Printers' Rollers

Real Rollers From the Core Out

Two thousand years ago chemists tried to get a substitute for glycerine.
Today others are trying—
Two thousand years from now somebody will be trying.
The GODFREY glue and glycerine base rollers for finer printing have never been surpassed—

NO GODFREY ROLLERS MELT

They are made to print — not to melt — and you don't have to pay fancy prices.
"ELASTA"— Resists heat up to 160°.
REGULAR — Resists heat up to 106°.
"CO-LASTA" — Probably the answer to the printers' prayer and maybe a nightmare cure. A combination of glycerine and rubber chemically treated with modern methods.
We know what rollers are for — and make them accordingly.

Rollers That Print—Not Rollers that Don't Print

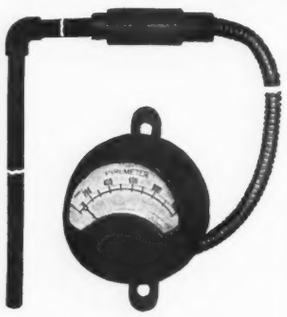
GODFREY PRINTERS ROLLERS
TRADE-MARK REGISTERED

Godfrey Roller Company 211-215 N. Camac Street Philadelphia, Pa.
WILLIAM P. SQUIBB, *President*
Representing Manhattan Rubber Rollers

Why Burn Your Metal?

Why waste Fuel?
Why spoil plates?
Why risk expensive delays?

Use an "Alnor" Pyrometer



Metal temperature is vitally important to every newspaper and printing plant.

PRICES $28 to $38 Depending upon size

Why guess when you can equip each stereotype, electrotype or remelting furnace with an "Alnor" Pyrometer for as low as $28.00?

The "Alnor" Pyrometer is accurate, rugged and durable. It can be installed by any shop man in a few minutes.

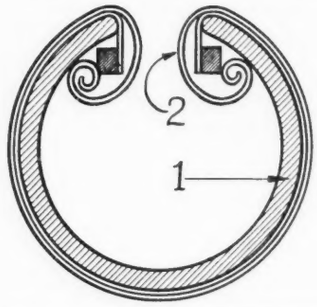
It pays for itself many times over in the saving of metal, time and fuel to say nothing of improving your printing through better plates.

Write for descriptive bulletin and list of users.

Illinois Testing Laboratories, Inc.
139 W. AUSTIN AVENUE CHICAGO, ILLINOIS

Wrinkle-Free Proofs

Ernest Osterlind, manager of Cleveland Typesetting, Inc., has adopted a simple device to prevent paper wrinkling or becoming slurred when taking proofs on enameled paper for reproduction purposes or where it is desired that the proofs be free from wrinkles when taken on ordinary grades of proof paper. The device consists of a section of clock spring under which the paper is slipped before the impression is taken.



The clock spring 2 *is reworked after annealing one end as shown in the diagram to provide a means for holding the clock spring band by means of the curled-in ends which are inserted in the impression cylinder slot and rest against the reel bars in the cylinder* 1.

The spring is intended for use only on hand-operated proof presses not provided with grippers, sheet bands or brushes or booster rollers and is attached to the impression cylinder as shown in the cross-sectional diagram of a proof press cylinder.

One spring is sufficient to smooth out air from between the paper and cylinder and to hold the sheet snugly against the cylinder packing.

Apprentices Start Five-Year Course at G. P. O.

In October a new school of apprentices consisting of 100 students (four of whom are girls) was started in the U. S. Government Printing Office by Public Printer Giegengack. The term of apprenticeship will be five years. In addition to instruction in the intricacies of the trade, each student will receive thorough academic training in English and literature.

The Apprentice Section of the G. P. O. will be under the immediate supervision of Deputy Public Printer Ortleb. Teachers chosen to conduct the School are O. E. Demarest, Joseph A. Toussaint and Harry E. Kelsey.

Disposing of Waste Products

Disposal of waste paper and other waste products in the printing plant is sometimes quite a problem. Finding a suitable outlet is the difficulty, because one doesn't want to spend too much time in locating the best market. Of course, it is possible, always, to dispose of waste material to firms specializing in such things, but if the right plan is adopted the revenue received may be increased considerably.

Bernard F. Garrity, mechanical superintendent of the Hartford (Conn.) *Times*, inserted the following advertisements in the liner section of the *Times:*

> NEWSPAPER MATS, $1 A HUNDRED, CAN BE used between floors and in attics, to keep out heat and cold. See Mr. Garrity at The Hartford Times, or call 2-0111.
>
> OLD NEWSPRINT FOR SALE, 50c A HUNDRED pounds. Call Mr. Garrity, 2-0111. The Hartford Times.

Mr. Garrity has been disposing of practically all of the old mats in the *Times* plant at $1 per hundred. He is selling, also, practically all spoiled copies and returns for 50c per hundred lbs.

The average price for waste paper is around 25c per hundred lbs. according to locality. One hundred mats weigh approximately 46 lbs. and as a rule the waste paper dealer doesn't want to take them at any price. Mr. Garrity's plan not only finds a market for mats and old papers but the revenue received is more than double the amount which could be obtained from other sources.

Books Received

Book Printing From Stereo Plates

Advocates of the stereotyping process for long-run edition work will take considerable satisfaction in a book entitled "After Three Years," which has just been published by the Vail-Ballou Press. The book, which is explanatory of Knick-O-Types (nickel-faced stereotypes) and Val-Lou-Types, is 7¼ in. by 10¾ in. size, bound in boards and consists of 72 pages. Fifty-odd pages are devoted to reproduction of book pages of various sorts printed from plates made by the Vail-Ballou Press. Announcement of the development of this type of plate was made three years ago. Since that time, it is stated, further development and refinement has taken place. A halftone frontispiece shows one corner of the plate-making department where the journeymen wear white clothing.

"Digested" Specimen Book

A Digest of Linotype Faces is a 180 page book, 4 in. by 7 in. in size, that gives a comprehensive picture of Linotype's typographic resources. It does not attempt to show each point size of each of the sixty-seven faces included, but, instead, indicates how the various faces look when properly leaded, gives a list of all characters, both regular and special, supplied with each font, and has page after page of special character data charted for reference.

A copy of *A Digest of Linotype Faces* is available without charge, to all who will find the book useful or informative. It may be obtained from Linotype headquarters in Brooklyn, N. Y., or from Linotype offices in Boston and Los Angeles. Canadian requests will be supplied by Canadian Linotype, Limited, in Montreal, Toronto and Winnipeg.

MADE IN U. S. A.

CORKPAK

REG. U. S. PAT. OFFICE

"The Perfect Underpacking or Top Blanket"

PRESS BLANKETS

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THEIR PRICE GIVES LOWER FIRST COST

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THEIR QUALITY GIVES BETTER PRINTING RESULTS

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THEIR EXTREME DURABILITY GIVES GREATLY

REDUCED OPERATING COSTS

You will be generously repaid for your interest and trial use of Corkpak Blankets. Satisfaction guaranteed.

Investigate, write us **today** (sending your specifications) for samples and prices.

THE CORKPAK COMPANY, Inc.

801 Second Ave. (at 43rd St.) NEW YORK

Department PE

"The Better Mouse Trap"

"If a man can write a better sermon, or make a better mouse trap, though he build his house in the woods, the world will make a beaten path to his door."

Emerson's famous words never rang truer than do they in this day and age of competition. Whether the article be the proverbial mouse trap or an automobile, the measure of a manufacturer's success is determined only by the quality of his product. With this thought in mind, the makers of

ACE CORD - RUBBER LINECASTING MACHINE **BELTS**

set out to build the best belts possible for this purpose. Their success is attested by the fact that they are in use in practically every country—from Alaska to South Africa. The Star-Herald of Panama City, Panama, is 100% "Ace" equipped. "Ace" belts are available for Main Drive, Distributor, Keyboard, Pi Stacker, Assembler Drive and Matrix Delivery. They are guaranteed for a minimum of one year and cost no more than leather. Send for price list.

ACE LINOTYPE ANGLE DRIVE CONVERTER makes a direct drive of your obsolete Part D-1945 Price complete with belt, $6.95—Sent on Free Trial

ACE BELTING COMPANY

4300 Washburn Ave. North, Minneapolis

DISTRIBUTORS

LINOTYPE PARTS CORPORATION

New York - Kansas City - Chicago - Los Angeles

HARRIS ASSEMBLER SLIDE CONTROL FOR LINOTYPES

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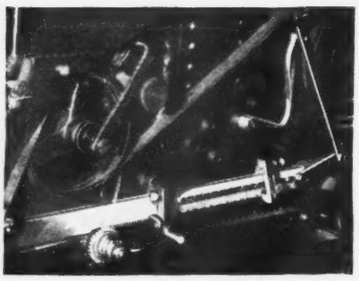


Showing installation on Linotype. Slide in position ready to assemble line.

TIME HAS PROVEN

That This Control Does Eliminate—

Transpositions
Jumping and jiggling of assembler slide
Adjusting of brakes
Replacing of brake shoes and assembler slides
And all the other tantalizing and irritating things caused by inadequate control of assembler slide.

Simple, efficient, economical—

You will be impressed by the simplicity of this control. All parts are well made and finished. They fit properly and are very easy to install. Adjustments are few and not intricate. When once set further attention is unnecessary. Maintenance is cut to almost nothing.

Satisfaction Guaranteed—

For a limited time we will ship these controls on 15 days' approval. After you see and use them you will agree with us that they are

High in Value—Low in Price

Take advantage of this offer NOW.

Made by
Printers' Machinery and Supply Company
723 First St.
Detroit, Mich.

ANY Newspaper

. . . big or little . . . will do its best work with

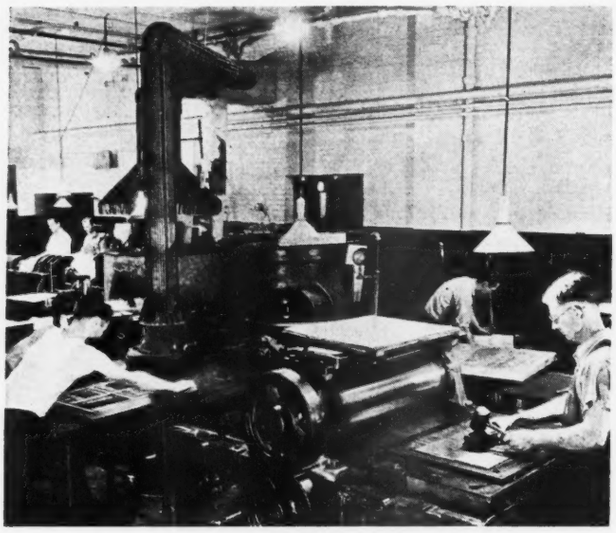
MORLEY MATS

They give deep, clear impressions that produce clear-printing stereos. They require only moderate moulding-pressure . . . and this protects type and cuts; prolongs the life of moulding blankets.

Morley Mats are worth getting acquainted with.

Samples for the asking.

MORLEY BUTTON
Manufacturing Company
PORTSMOUTH, NEW HAMPSHIRE
***New York Office:* 46 East 11th Street**



Stereotype foundry of the Tampa (Fla.) Tribune. *York air conditioning makes the work of the stereotyper cool and comfortable despite the metal pots in which are melted the metal from which the plates are cast.*

Comfort

Continued from Page 123

tioned zones, so arranged that each zone could function independently. The system operates throughout the year.

Six York year-'round air conditioners were installed. One unit serves each of the six air-conditioned zones. These units are located centrally in the building. No. 1 unit serves the pressroom and the mailing room. No. 2 unit air-conditions the composing room. Likewise, the atmosphere of the stereotype room is kept in a comfortable condition both summer and winter by unit No. 3. Unit No. 4 conditions the entrance lobby and first floor offices.

Units 5 and 6, which are located in the attic of the building, serve the second floor zones. Here are located the executive offices, editorial and news rooms, advertising department, photographic studio and dark room.

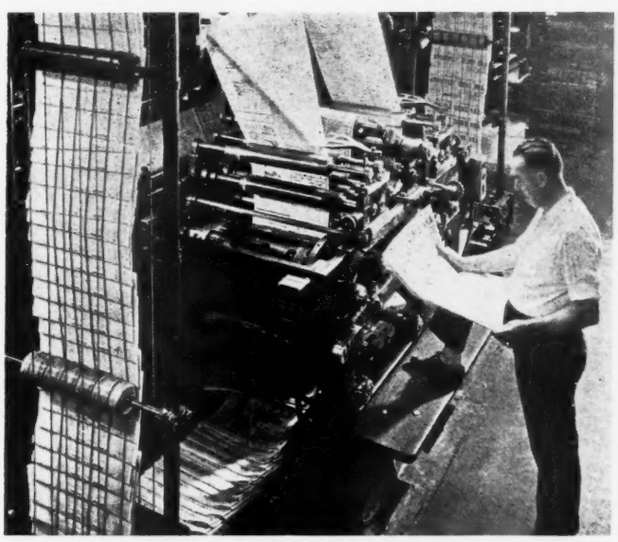
One of the features of this zoned system of air condi-

View of machine section in the composing room of the Tampa (Fla.) Morning Tribune. *Note the conditioned air supply grilles at the left near the ceiling. These grilles and others located in various parts of the department supply scientifically treated air at all times.*

tioning is its flexibility. Control of inside weather conditions in the various zones may be switched from summer to winter requirements in a few minutes. Like all the specialized mechanical equipment of a modern newspaper plant, the air conditioning equipment must function to meet the exacting demands of operation, where men work at any and at all hours, and to compensate for constantly changing external weather conditions.

Special Exhaust System

In conjunction with the air conditioning system, a special exhaust system has been installed to keep the etching and photographic departments free from noxious fumes, and to prevent these fumes from escaping into other departments. A separate exhaust system also keeps the toilets and rest rooms cool in summer and warm in winter.



Ed Isler, pressroom superintendent of the Tampa (Fla.) Tribune *inspects a first copy of an edition. This 150,000-lb. Goss octuple press was moved from its location in the old building in less than six days' time under Mr. Isler's supervision. He was assisted by P. W. Pressby, electrician, and a crew of helpers.*

All attic air ducts of the system are isnulated to prevent condensation and to reduce loss of energy to a minimum. The air ducts which convey air to the second floor zones are located in the attic space, while the ducts in the composing room and pressroom are painted white to harmonize with ceilings and to be inconspicuous.

Plaques Introduce Air To Second Floor

Decorative ceiling plaques permit conditioned air to be introduced to the second floor. This system of air distribution is so arranged that the air flow may be individually controlled by pushing wall buttons in the various departments and private offices.

Details About Equipment

The basic mechanical elements of the central plant in the engine room, consist of one 11 in. by 9 in. York Freon compressor, driven by a 75 h.p. motor. Condenser water for the system is drawn from a deep well, the pump for drawing this water being also located in a pit in the engine room. Essential to the operation of the zone system are the six York horizontal type air conditioner units. Four of these units, placed on the mezzanine floor, above the toilets and below the second floor ceilings, serve the pressroom, mailing room, stereotype room, composing room and first floor offices and lobby,

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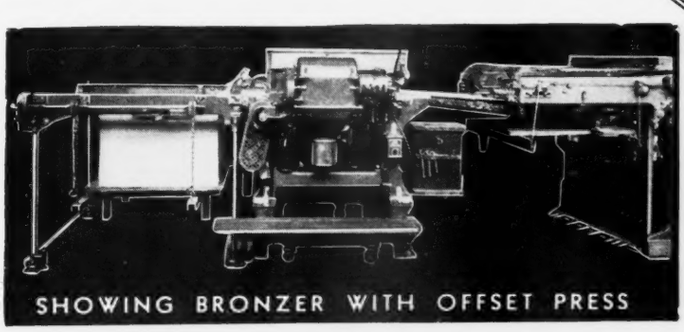

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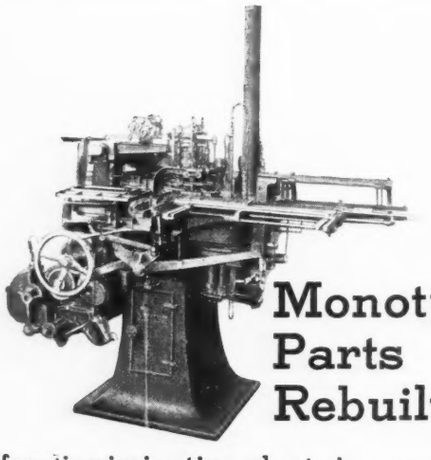

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• Technical Literature

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☐*Jiffy Inxetter*—Bulletin describing ink regulator for preventing offset for regular and process color work.

☐*Automatic Register Transfer Table*—Designed for attachment to vertical type of press for hair-line register at any speed.

☐*Curle Metal Catchers for Linotypes and Intertypes*—Folder illustrates and describes unit to be attached for collecting all jet, sprue and knife trimmings.

☐*Proving Machine Bulletin*—Descriptive matter and cuts tell about machine designed to proof plates or forms up to 14 in. by 18 in. With register and inking system for color proving.

☐*Rotary Shaver*—Bulletin illustrates and describes plate shaving equipment for electros, stereos (type-high and shell-cast), metal base and wood-mounted plates.

☐*Portable Router Circular*—Gives details of construction and kind of work router will handle.

☐*Catalog*—Printed in color, 32 pages, 9 in by 12 in. Shows specimens of modern wood types, italics, borders, ornaments and tint blocks, including other items used in printing from wood.

☐*$2.00 Catalog*—A three-color wood-type and printer's wood products Catalog with indefinite supplements is in the making. Size 12 in. by 18 in. A charge of $2.00 is being placed upon this catalog which will be refunded when orders for $20.00 or more of the products shown in the catalog have been received by the manufacturer.

☐*Lock-Wheel Numbering Machine*—Stuffer illustrates and describes machine for high speed small diameter cylinder press.

☐*Type High Gauge*—Circular describes gauge for testing plates and slugs from various composing machines.

☐*Bulletin*—Illustrates and describes die maker's saw, rule benders, cutters, dies and supplies.

☐*Bauer Types*—Catalog showing short-line specimens of type faces.

☐*Color Specimen*—Demonstrates the use of Dullset Inks printed from rubber plates.

☐*Five-Color 25 by 38 Rotary Press*—Illustrated bulletin showing new features and the work which may be done on new press.

☐*Non-Stretch Curved Precision-Plate Unit*—Bulletin describes equipment for producing printing plates.

☐*Illumination Control Bulletin*—Describes control apparatus and system for automatically maintaining illumination level in rooms.

☐*A Digest of Linotype Faces*—Pocket size book demonstrating uses and suitability of matrix faces for book, periodical, publicity and display faces. Many special characters, ornaments, accents and sign matrices are also shown.

☐*Wood Type, Wood Materials, Equipment and Supplies for Printing*—Catalog shows specimens, ornaments and rules, as well as composing room equipment and supplies.

☐*Wire Stitching Machines*—Booklet, 24 pages and cover, illustrating and describing stitchers, staplers, bottom sealer, calendar and long-reach machines.

☐*Routing Machine Bulletin*—Pictures show the router in detail and its mechanical features are fully described.

☐ *Illustrated Block and Hook Systems Catalog*—Describes in detail various kinds of base for cut and plate mounting purposes, together with equipment associated with mounting blocks.

☐ *High-Speed Bronzer*—Bulletin illustrates and describes mechanical features.

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Huxley Vertical

Huxley Vertical, a new type face, has just been introduced by the American Type Founders Sales Corporation. A light, san-serif face in the modern tradition, Huxley Vertical provides a striking "structural" effect. Its ornamental value, it is said, is effective when juxtaposed to a facade of light or dark body text. It also has particular application to box and label design. At the present time, Huxley Vertical is available in 84-point and 120-point sizes.

An 8-page folder showing Huxley Vertical in a wide range of applications is available from American Type Founders on request.

Appointed Cincinnati Manager

Horton W. Bransford, Dallas manager, has been promoted to the managership of the Cincinnati branch, American Type Founders Sales Corporation, succeeding Frank W. Shober, who in turn has been promoted to the New York managership.

Manager Dallas Branch

Thomas K. Bransford, for fifteen years salesman of American Type Founders, covering southern Texas, has been promoted to Manager of Dallas Branch, effective November 1st. He succeeds his brother, Horton W., who moves up to the Cincinnati Branch management.

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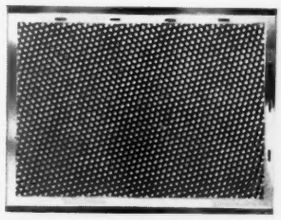

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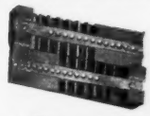

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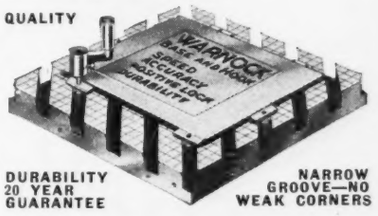

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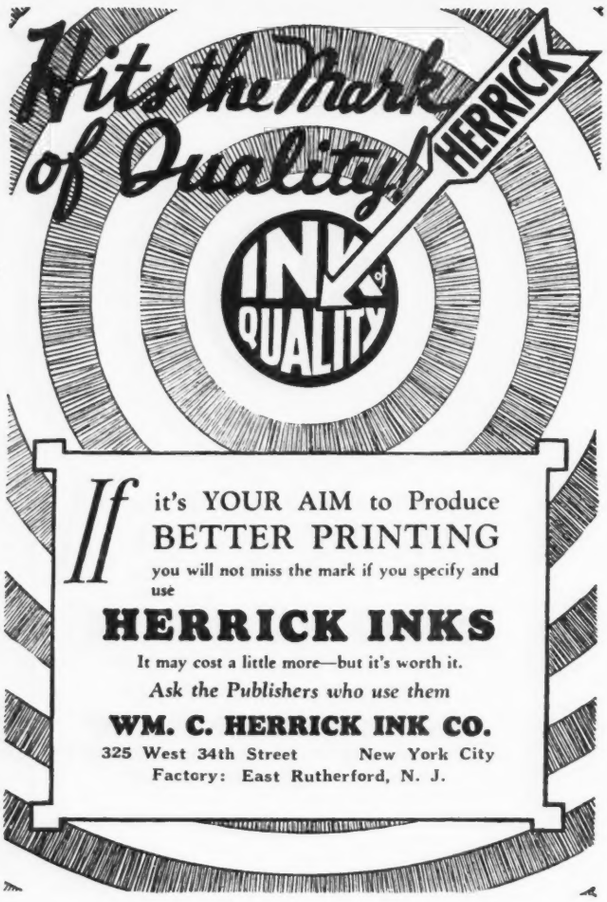
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By ROBERT F. SALADE

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It is, indeed, remarkable that as many as five superimposed colors can be printed almost simultaneously on a five-color rotary press, without the wet colors mixing with one another, or without the finished printing showing mottling of color. Nevertheless, the entire process is comparatively simple due to the known chemical action of the colored inks used. Taking four-color halftone process printing as the example, the yellow, red, blue and black process inks are each specially manipulated in the desired order to produce the continuous wet color printing, *i. e.*, the first color to be printed is mixed so that it will have a limited stiff or tacky body. The second color to be used is made less tacky and it will readily print over the first color on the sheet. The third color is made still softer than the second one, and the fourth color is mixed so that it will be the least tacky of all.

The inks for either two-color or three-color process printing are manipulated in the same manner as mentioned. And, in like manner, the inks for continuous wet multi-color printing, from line color plates with solid areas, are each mixed for their particular purpose. As a general rule, no ordinary drier or reducer should be mixed with process inks.

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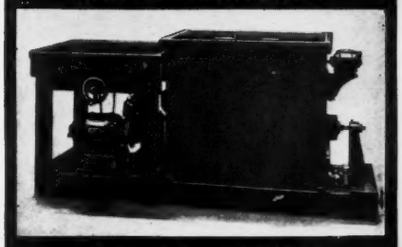

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Wood Newspaper Machinery Corporation *Agency:* Fred Glen Small, Inc., New York, N. Y.	20

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Remarks .....

Firm Name.....

Name and Title.....

City .....State.....

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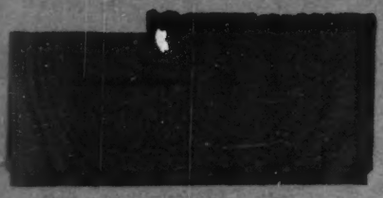

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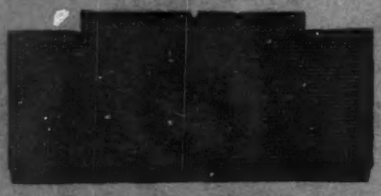

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Eliminates hand operations, saves time, and results in better printing. The creation of this new use for the Intertype Automatic Quadding and Centering Device is undoubtedly one of the most profitable improvements to be offered to the industry.

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